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(54) Title: METHOD AND APPARATUS OF CUSTOMIZED AUTOMATED VENDING MACHINES AND VENDING MACHINE SYSTEMS

(57) Abstract: Certain embodiments include a method and apparatus controlling a financial access vending machine. The financial access vending machine contains a user identifying interface subsystem and a locale identification. Certain embodiments include systems of such financial access vending machines, financial access mechanisms and vending system servers. Certain embodiments include methods of contracting between financial access vending machines, merchant access servers and financial access mechanisms.

## METHOD AND APPARATUS OF CUSTOMIZED AUTOMATED VENDING MACHINES AND VENDING MACHINE SYSTEMS

### Technical field

This invention relates to financial access vending machine controllers  
5 controlling vending machines involving user finance card readers and systems  
containing such financial access vending machines.

### Background Art

Figure 1 depicts a vending machine controller **100** as found in the prior art.

Vending machine controller **100** contains a vending machine control computer  
10 **102** coupled **112** to computer accessible memory **110**, where a vending  
machine control program is stored. Note that it is often the case that there is  
a volatile and nonvolatile memory component to computer accessible memory  
**110**.

Vending machine controller **100** contains the vending machine control  
15 computer **102** further coupled **122** to user screen **120** and further coupled **132**  
to user key interface **142**.

Vending machine controller **100** contains the vending machine control  
computer **102** further coupled **142** to user card reader **140**, coupled **162** to  
external network interface **160**, which in turn couples **164** the vending  
20 machine controller to one or more external networks.

Vending machine controller **100** contains the vending machine control  
computer **102** further coupled **152** to user printer **150**, coupled **172** to deposit  
receiver **170** and further coupled **182** to cash dispenser interface **180**.

These devices are found throughout the world in a variety of settings and  
25 have become an assumed component of the lifestyle of millions. They  
operate at hours and in locations not serviced by regular financial institutions,  
providing a significant set of services to anyone possessing an access card

and password sequence, which is often a four keystroke sequence known as a Personal Identification Number (PIN). Access to the user's finances can be attained. Cash can be received and/or transferred, which is accordingly credited or debited against the financial account. The account status may be viewed, as can a log of recent transactions. While these services are extremely valuable, there are a number of additional needs not serviced by such devices at this time.

Each of these vending machines is specifically identified, and that identification is essential to secure transactions with external financial networks. However, the user interface software does not reflect that identification. As a consequence, there is no way for a user to get customized information specific to that vending machine locale, such as where nearby restaurants, hotels or car rental companies are located. What is needed is a method of presenting vending machine specific content to users, which can be readily navigated by the user.

Each of these vending machines, once the user access card has been read and the PIN confirmed, has identified the user. However, this identification does not affect the presentation, other than provide financial specifics during the course of the user session on the vending machine. There is no way for a user to access generally available real-time information such as relevant stock market information, scores and scenes of ongoing sporting events, information which may be needed or greatly desired by travelers away from their usual sources of information. What is needed is a method of presenting user specific content to users, which can be readily navigated by the user.

Each of these vending machines is the property of a company that may benefit from presenting advertising to its users. Such advertising may include special offers from one or more lending institutions, such as discounts on certain acquisitions, mortgage plans, auto loan deals and the like. Such advertising aids in creating additional business for the vending machine owner. Vending machine owners may further wish to sell advertising,

particularly targeted advertising. Targeted advertising incorporates knowledge of the specific advertising situation, such as the location of the advertising situation, the vending machine and also the general profile of the user, such as lifestyle preferences, gender, age and educational level. What  
5 is needed is a method of targeted advertising presentation in a vending machine, which takes into account the vending machine identification. What is further needed is a method of targeted advertising presentation in a vending machine, which takes into account the vending machine identification and the user profile.

- 10 Figure 2 depicts a prior art system containing multiple vending machine controllers **100-1** to **100-6** interfaced to a vending network server **220** which is in turn coupled **302** to a financial network **300**.

Each vending machine controller **100-1** to **100-6** respectively interfaces **164-1** to **164-6** via vending network **200** to a vending network server **220** coupled  
15 **202** to vending network **200**. Vending network server **220** provides a secure network communications gateway **302** between the vending network **200** and one or more financial network servers **300**. By way of example, users using each of the vending machine controllers **100-1** to **100-6** may be concurrently using access cards from distinct financial institutions. To carry out the  
20 requested financial transactions in this example, vending network server **220** may thus be interfaced to six distinct financial network servers **300**, possibly through intervening network paths.

Vending machine networks such as just described are fundamental to the improved financial services enjoyed by millions of people in this and every  
25 other industrialized or post-industrialized country. They provide financial services to people from a variety of financial institutions at most of these vending machines.

However, there is an important missing capability, the ability to perform contractual transactions between the user, validated by the financial network  
30 access and merchants from the vending machine. Examples of such missing



capabilities include, reservations for restaurants, lodging, transport, recreational, sporting and cultural events. Today there is no way for a financial access vending machine user to find out where any of these mercantile products are locally available, arrange for such services or make  
5 reservations. This is a significant inconvenience to the users and a significant lost opportunity for the mercantile community.

Figure 3 depicts a typical user interface **400** for a vending machine containing a keypad array **410-1** to **410-12**, a user view screen **420**, access card insertion slot **430**, printer output slot **440** and cash dispenser **450**.

10 Note that in certain instances, access card insertion slot **430** may be a magnetic access card reader, in which the access card is passed over a magnetic sensor to be read. In such instances, the card reader strictly reads but never writes to the access card. In other instances, access card insertion slot **430** may contain a smart card interface. Smart cards are distinguished by  
15 containing non-volatile memory and a communication interface by which that memory can be both read and written. There are a variety of smart cards in production and a set of smart card interface standards which are part of the prior art in the financial access vending technology.

Cash dispenser **450** is common among such vending machines, usually  
20 dispensing a single unit of currency, which in the United States is most often twenty dollar bills.

As mentioned before, these vending machines have become common over much of the world because they are a distinct improvement over the previous solutions, such as walking into a bank during business hours to transact  
25 business and either deposit or remove money from an account. However, such machines have several limitations, which frustrate and/or inconvenience customers using such machines.

While the machines are internally identified for purposes of conducting secure communications with financial networks, the customer/user is given little or no

useful information about the locale or identity of the vending machine. To give an example, someone in an airport, bus or train terminal may well want to know where they are, where the taxis, rental cars, local-connecting buses are located with respect to the vending machine site they are using. They  
5 may further be hungry or tired, and may well want to know where various kinds of restaurants and hotels are located from the vending machine site. Note that this is useful not only to the vending machine customer/user but also to the merchants providing such services and accommodations. Both groups would benefit from the availability of such information at the vending  
10 machine site. Today, neither group has the opportunity for such advantages.

The customer/user may further wish to know about current real time events they are interested in, by way of example, sporting event scores, the status of various stocks in the open financial markets, election results, the weather locally and in various cities. Today, such information is not available at these  
15 vending machine terminals.

The customer/user may wish to buy tickets to various entertainment and sporting events, but today, such ticket purchase must be done elsewhere, often requiring significant inconvenience and wasting of time standing in lines to access some other system or ticketing booth. In certain cases, for  
20 especially major events, the tickets may go on sale and be completely sold out at times when many customers cannot even take part, except through some form of reservation system. Currently, such reservation systems usually require the customer to either visit a ticketing booth, waiting in often very long lines, attempt contact by telephone, often with even greater delays,  
25 or else wait till the performance and hope nothing went wrong in the reservation system. Being able to pick up such tickets at a financial access vending machine would greatly reduce the inconvenience associated with such ticketing procedures today.

To summarize, what is needed is a method of presenting vending machine  
30 specific content to users, which can be readily navigated by the user. What is

needed is a method of presenting user specific content to users, which can be readily navigated by the user. What is further needed is a method of targeted advertising presentation in a vending machine, which takes into account the vending machine identification and the user profile.

- 5 The customer/user of financial access vending machines is given little or no useful information about the locale of the vending machine. They cannot determine where taxies, rental cars, local-connecting buses are located with respect to the vending machine site they are using. They cannot find out where various kinds of restaurants and hotels are located from the vending  
10 machine site. Both user and local merchants benefit from the availability of such information at the vending machine site. Today, neither group has the opportunity for such advantages.

Today, the customer/user cannot find out about current real time events they are interested in, sporting event scores, the status of various stocks in the  
15 open financial markets, election results, the weather locally and in various cities from existing financial access vending machines.

Existing networks of financial access vending machines are unable to perform contractual transactions from the vending machine between the user, validated by the financial network access, with merchants. These networks  
20 are unable to make reservations for restaurants, lodging, transport, recreational, sporting and cultural events. Today there is no way for a financial access vending machine user to learn what mercantile products are locally available, arrange for such services, make reservations or discover their locations. Users are significantly inconvenienced and the local mercantile  
25 communities are losing opportunities every day.

#### Summary of the invention

Various embodiments satisfy the previously discussed limitations and problems of the prior art.

Certain embodiments include a method of controlling a financial access vending machine. The financial access vending machine contains a user identifying interface subsystem and a locale identification. The method comprises receiving a user stimulus input stream from the user identifying interface subsystem; generating a user stimulus output stream from the received user input state and from the locale identification; and sending the user stimulus output stream to the user identifying interface subsystem.

Such methods are advantageous in providing locale identification-based interactions to users, facilitating location of various facilities. It becomes possible to find restaurants, transportation, accommodations and restrooms, to name just a few pieces of useful, locale-related information to the users of such vending machines.

Certain embodiments include receiving the user stimulus input stream further comprising processing the received user input state to create a user navigation input. Generating the user stimulus output stream is further comprised of generating the user stimulus output stream from the received user input state and from the locale identification and based upon the user navigation input. Such embodiments provide user navigation of the locale identification-based interactions.

Certain embodiments include receiving the user stimulus input stream further comprising processing the received user input state to create a financial access mechanism reference. Such embodiments are advantageous in providing a reference to which financial access mechanism will be next contacted for financial transactions.

Certain embodiments include activating the financial access mechanism reference to create an activated financial access mechanism. Such embodiments are advantageous for activating communication with the financial access mechanism.

Certain embodiments include receiving the user stimulus input stream further comprising processing the received user input state to create a user identification. Activating the financial access mechanism reference is further comprised of activating the financial access mechanism reference based upon the user identification to create an activated financial access mechanism. Such embodiments are advantageous when the financial access mechanism requires user identification of a specific account.

Certain embodiments include the locale identification including a local user access profile collection of at least one local access profile node. Generating the user stimulus output stream is further comprised of generating the user stimulus output stream from the received user input state and from the locale identification including the local user access profile collection and based upon the user navigation input and based upon the user identification. Such embodiments advantageously incorporate user identification and the local access profile collection into the interactions. Such embodiments advantageously provide a collection of user access profile nodes in which differing presentation content may be collected for use in generating the user stimulus output stream.

Certain embodiments further comprise maintaining the locale identification including the local user access profile collection. Such embodiments advantageously support the computer system of the financial access vending machine maintaining the locale identification including local user access profile collection. The locale identification and local user access profile collection evolve over time, reflecting changes in the local environment surrounding the financial access vending machine as well as other changes such as the identity of the user and whether lunch or dinner is being locally served.

Certain embodiments comprise receiving a financial message from the activated financial access mechanism and sending an outgoing financial message to the activated financial access mechanism. Such embodiments

advantageously provide communicate to and from the financial access mechanism.

Certain embodiments include wherein receiving the user stimulus input stream further comprises processing the received user input state to create a financial transaction request message as the outgoing financial message.  
5 Receiving a financial message from the activated financial access mechanism is further comprised of determining a received financial transaction response message type from the received financial message. Also included is processing the received financial message to create a financial transaction  
10 response when finding the received financial message is of a received financial transaction message type.

Certain embodiments include receiving the user stimulus input stream further comprise processing the received user input state to create a merchant access request containing a merchant access identifier; and further include  
15 opening a merchant access mechanism based upon the merchant access request containing the merchant access identifier. Such embodiments advantageously support opening a merchant access mechanism based upon the merchant access request created from the received user input state.

Certain embodiments include receiving a merchant offer message from the  
20 merchant access mechanism. Generating the user stimulus output stream is further comprised of inserting the merchant offer message into the user stimulus output stream. Such embodiments advantageously support user viewing of merchant offer messages through the financial access vending machine.

25 Certain embodiments include receiving the user stimulus input stream further comprised of processing the received user input state to create a user acceptance state of the merchant offer message and processing creating an acceptance financial access request message as the financial access request message. Such embodiments advantageously provide for user acceptance of

an offer and requesting financial access before sending acceptance to the merchant.

Certain embodiments include receiving the received financial message, which is further comprised of determining a confirmation financial response message type from the received financial message. Also included are  
5 generating a user acceptance message based upon the user acceptance state of the merchant offer message and the confirmation financial response message type from the received financial message; and sending the user acceptance message to the merchant access mechanism. Such  
10 embodiments advantageously support user acceptances with confirmed financial access to funds.

Certain embodiments include receiving an acknowledgement message of the user acceptance message and creating a financial acknowledgement message based upon the received acknowledgement message as the  
15 outgoing financial message. Such embodiments advantageously support communication that the user acceptance has been received by the merchant access mechanism to the financial access mechanism.

Certain embodiments include the financial access vending machine further containing a dispenser subsystem controlled by a dispenser subsystem  
20 communicatively coupled to the computer of the computer system. The method of controlling further includes creating a dispenser command based upon the received acknowledgement message of the user acceptance message; and operating the dispenser subsystem based upon the dispenser command. Such embodiments advantageously support controlled dispensing  
25 of money, various certificates as well as bottled, canned and/or packaged goods based upon the transactions between the user and financial access mechanisms and merchant access mechanisms. As used herein, dispensers will also refer to devices receiving deposits from users.

Certain other embodiments include the financial access vending machine  
30 further containing a dispenser subsystem. Operating the dispenser system is

based upon receiving a merchant dispenser command message. Such embodiments advantageously provide operational control of the dispenser subsystem based upon merchant dispenser command.

Certain embodiments include receiving the received financial message, which  
5 is further comprised of determining an approval response message type of a dispenser command permission message from the received financial message. Creating a merchant dispenser command based upon the received merchant dispenser command message is also further comprised of the following. Creating the dispenser command permission message as the  
10 outgoing financial message. And creating the merchant dispenser command based upon the received merchant dispenser command message and based upon the approval response message type of the dispenser command permission message from the received financial message. Such embodiments advantageously provide creating the merchant dispenser command based upon  
15 the financial access mechanism approval.

Certain embodiments include receiving the received financial message further comprised of determining a local user access profile maintenance message type from the received financial message. Maintaining the locale identification including the local user access profile collection is further comprised of  
20 maintaining the local user access profile collection based upon the local user access profile maintenance message type of the received financial message. Such embodiments advantageously provide for local user access profile maintenance messages to be recognized and used in maintaining the local user access profile collection.

25 Certain alternative embodiments include creating a dispenser command and operating the dispenser subsystem based upon the dispenser command. Such embodiments advantageously support localized command generation for controlling the dispenser subsystem.

Certain embodiments include receiving the received financial message further  
30 comprised of determining a dispenser command option message type from



the received financial message. Generating the user stimulus output stream is further comprised of generating the user stimulus output stream from the received user input state, from the locale identification and based upon the dispenser command option message type of the received financial message.

- 5 Such embodiments advantageous provide generation of the user stimulus stream based upon locale identification, user local access profile collection and received dispenser command option financial message.

Certain embodiments include receiving the user stimulus input stream comprised of processing the received user input state to create a user  
10 dispenser option command. Creating the dispenser command is further comprised of creating the dispenser command based upon the user dispenser option command. Such embodiments advantageously provide the creation of dispenser commands based upon the received user input state.

Certain embodiments include receiving the received financial message  
15 comprised of determining a dispenser command message type from the received financial message. Creating the dispenser command is further comprised of creating the dispenser command based upon the dispenser command message type from the received financial message. Such embodiments advantageously the creation of dispenser commands based  
20 upon financial message dispenser commands.

Certain embodiments include maintaining the locale identification including the local user access profile collection comprised of maintaining the locale identification including the local user access profile collection based upon the activated financial access mechanism. Such embodiments advantageously  
25 provide for maintaining the locale information including the local user access profile based upon the activated financial access mechanism.

Certain embodiments include maintaining the locale identification including the local user access profile collection and is further comprised of maintaining the locale identification including the local user access profile collection based  
30 upon the activated financial access mechanism and based upon the user

identification. Such embodiments advantageously provide for maintaining the locale identification including the local user access profile collection based upon the activated financial access mechanism and based upon the user identification.

- 5 Certain embodiments include maintaining the locale identification including the local user access profile collection comprised of maintaining the locale identification including the local user access profile collection based upon the user identification. Such embodiments advantageously provide for maintaining the locale identification including the local user access profile  
10 collection based upon the user identification.

Certain embodiments include maintaining the locale identification including the local user access profile collection comprised of creating a local access profile node in the local user access profile collection. Such embodiments advantageously supporting creating new local access profile nodes in the  
15 local user access profile collection.

Certain embodiments include maintaining the locale identification including the local user access profile collection comprised of deleting a local access profile node from the local user access profile collection. Such embodiments advantageously provide for deleting a local access profile node from the local  
20 user access profile collection.

Certain embodiments include maintaining the locale identification including the local user access profile collection comprised of modifying a local access profile node in the local user access profile collection. Such embodiments advantageously provide for modifying a local access profile node in the local  
25 user access profile collection.

Certain embodiments include a local access profile node in the local user access profile collection containing a textual presentation content. Generating the user stimulus output stream is comprised of the following. Selecting the first local access profile node in the local user access profile collection as a

presentation node. And generating the user stimulus output stream from the received user input state and from the textual presentation content of the presentation node. Such embodiments advantageously provide textual presentation content for a local access user profile node which is presented in  
5 the user stimulus output stream.

In certain other further embodiments, the local access profile node contains a graphical presentation content. Generating the user stimulus output stream is comprised of the following. Selecting the first local access profile node in the local user access profile collection as a presentation node. And generating the  
10 user stimulus output stream from the received user input state and from the graphical presentation content of the presentation node. Such embodiments advantageously provide graphical presentation content for use in generating the user stimulus output stream.

In certain embodiments, the local access profile node contains graphical  
15 presentation content, in turn containing motion video content presentation. Generating the user stimulus output stream from the received user input state and from the graphical presentation content of the presentation node is further comprised of generating the user stimulus output stream from the received user input state and from the motion video presentation content of the  
20 presentation node. Such embodiments advantageously provide motion video presentation content for use in generating the user stimulus output stream.

In certain embodiments, the local access profile node contains a synchronized audio sequence. Generating the user stimulus output stream is comprised of the following. Selecting the first local access profile node in the local user  
25 access profile collection as a presentation node. And generating the user stimulus output stream from the received user input state and from the synchronized audio sequence of the presentation node. Such embodiments advantageously provide synchronized audio for use in generating the user stimulus output stream.

In certain embodiments, the local user access profile collection contains a first and second local access profile node. Additionally, the first local access profile node contains a link referencing the second local access profile node. Receiving the user stimulus input stream is further comprised of processing  
5 the received user input state based upon the first local access profile node containing the link to the second local access profile node to create a user node selection. Generating the user stimulus output stream is further comprised of generating the user stimulus output stream from the received user input state and from the locale identification including the local user  
10 access profile collection and based upon the user node selection. Such embodiments advantageously provide mechanisms to reference a second local access profile node for use in generating the user stimulus output stream.

Certain embodiments include maintaining a presentation node collection  
15 comprising at least one presentation reference to an associated local access profile node of the local user access profile collection. Generating the user stimulus output stream is further comprised of generating the user stimulus output stream from the received user input state and from the locale identification and based upon the user navigation input and the user  
20 identification and the presentation node collection. Such embodiments advantageously generate the user stimulus output stream based upon the presentation node collection. The presentation node collection acts as a collection of selected local access profile node references in the generation of the user stimulus output stream.

25 In certain embodiments, the user navigation input belongs to a user navigation command collection supporting at least one of the following: selecting a local access profile node reference, deleting a local access profile node reference and resting a node list command. In certain embodiments, the corresponding operations are performed on the presentation node  
30 collection when the appropriate command is included in the user navigation

input. Such embodiments advantageously support maintaining and manipulation of the presentation node collection.

In certain embodiments, the user navigation input belongs to a user navigation command collection: selecting a local access profile node  
5 reference, deleting a local access profile node reference and resting a node list command. In certain embodiments, the corresponding operations are performed on the presentation node collection when the appropriate command is included in the user navigation input. Such embodiments advantageously support maintaining and manipulation of the presentation  
10 node collection.

Certain embodiments include the user identifying interface subsystem comprised of a user presentation subsystem and a user response subsystem. Sending the user stimulus output stream to the user identifying interface subsystem is comprised of sending the user stimulus output stream to the  
15 user presentation subsystem. Receiving the user stimulus input stream from the user identifying interface subsystem to create the received user input state is comprised of receiving a user stimulus input stream from the user response subsystem to create the received user input state. Such embodiments advantageously partition input and output streams going to separate  
20 specialized subsystems.

Certain embodiments include the user presentation subsystem comprised of a user video subsystem and the user stimulus output stream comprised of a user video output stream. Sending the user stimulus output stream to the user identifying interface subsystem is comprised of sending the user video output  
25 stream to the user video subsystem. Such embodiments advantageous support video streams and further advantageously support motion video streams.

Certain embodiments include the user response subsystem comprised of a user tactile input subsystem. Receiving the user stimulus input stream from  
30 the user response subsystem to create the received user input state is

comprised of receiving the user tactile input stream from the user tactile input subsystem to create a received user tactile input state. Processing the received user input state to create the user identification is comprised of processing the received user tactile input state to create a user identification  
5 state. Such embodiments advantageously support partitioning of the user input into a tactile input state to further support creating the user identification state. Such tactile input includes but is not limited to entry of a PIN, thumbprint, fingerprint, handprint or retinal scan.

Certain embodiments include refinement of processing the received user input  
10 state to create the user identification as follows: Sending a financial identification confirmation request message based upon the user identification state to the activated financial access mechanism to create a sent financial identification confirmation request message. Receiving a financial message from the activated financial access mechanism a financial identification  
15 confirmation message responding to the sent financial identification confirmation request message to create a received financial identification confirmation message. Processing the received financial identification confirmation message to create the user identification. Such embodiments advantageously support confirmation of the user identification by the financial  
20 access mechanism.

Certain embodiments include the user identifying interface subsystem comprised of a user tactile input subsystem. Receiving the user stimulus input stream to create the user input state is further comprised of receiving a user tactile input stream from the user tactile input subsystem to create a user  
25 tactile input state. Such embodiments advantageously support partitioning the user stimulus input stream and user input state into a tactile component.

Certain embodiments include the user tactile input subsystem comprised of a user touch keypad subsystem. Receiving the user tactile input stream is further comprised of receiving a user touch keypad input state from the user  
30 touch keypad input subsystem. Such embodiments advantageously provide

deriving from the user tactile input stream a user touch keypad input state to aid in controlling the financial access vending machine.

Certain embodiments include the user tactile input subsystem comprised of a user handprint sensor subsystem. Receiving the user tactile input stream from the user tactile input subsystem is comprised of receiving a user handprint sensor input state from the user handprint sensor subsystem. Such embodiments advantageously provide user handprint sensor input to aid in controlling the financial access vending machine.

Certain embodiments include the user tactile input subsystem comprised of a user retinal sensor subsystem. Receiving the user tactile input stream from the user tactile input subsystem is comprised of receiving a user retinal sensor input state from the user retinal sensor subsystem. Such embodiments advantageously provide user retinal scan sensor input to aid in controlling the financial access vending machine.

Certain embodiments include the user response subsystem comprised of a user photographic sensor subsystem. Receiving the user stimulus input stream from the user response subsystem is further comprised of receiving a user photographic sensor input state from the user photographic sensor subsystem. Such embodiments advantageously provide user photographic sensor input to aid in controlling the financial access vending machine.

Certain embodiments include the user response subsystem comprised of a user acoustic sensor subsystem. Receiving the user stimulus input stream from the user response subsystem is comprised of receiving a user acoustic sensor input stream from the user acoustic sensor subsystem to create a user acoustic sensor input state. Such embodiments advantageously provide user acoustic sensor input to aid in controlling the financial access vending machine.

Certain embodiments include the user identifying interface subsystem comprised of an access card interface subsystem. Receiving the user

- stimulus input stream from the user identifying interface subsystem is comprised of receiving an access card input stream from the access card interface subsystem to create an access card input state. Activating the financial access mechanism reference to create the activated financial access
- 5 mechanism is comprised of the following. Making a financial access mechanism reference message based upon the financial access mechanism reference and the access card input state. And using the financial access mechanism reference message to create the activated financial access mechanism.
- 10 Such embodiments advantageously provide an access card interface to the financial access vending machine. Such embodiments further advantageously provide for activating the financial access mechanism based upon making the financial access mechanism reference message based upon the access card input state and using the financial access mechanism
- 15 reference message to activate the financial access mechanism.

- Certain embodiments include using the financial access mechanism reference message to create the activated financial access mechanism comprised of the following: Sending the financial access mechanism reference message to a financial access server. Receiving a financial access mechanism activation
- 20 confirmation message from the financial access server. Processing the financial access mechanism activation confirmation message to create the activated financial access mechanism. Such embodiments advantageously provide for using the financial access mechanism reference message to create the activated financial access mechanism based upon a dialog with the
- 25 financial access server.

- Certain embodiments include using the financial access mechanism reference message to create the activated financial access mechanism comprised of the following: Sending the financial access mechanism reference message to a vending system server. Receiving a financial access mechanism activation
- 30 confirmation message from the vending system server. And processing the



financial access mechanism activation confirmation message to create the activated financial access mechanism. Such embodiments advantageously provide for using the financial access mechanism reference message to create the activated financial access mechanism based upon a dialog with the vending system server.

Certain embodiments include using the financial access mechanism reference message to create the activated financial access mechanism comprised of the following: Sending the financial access mechanism reference message to a financial access card controller. Receiving a financial access mechanism activation confirmation message from the financial access card controller. And processing the financial access mechanism activation confirmation message to create the activated financial access mechanism. Such embodiments advantageously provide for using the financial access mechanism reference message to create the activated financial access mechanism based upon a dialog with the financial access card controller.

Certain embodiments include the user identifying interface subsystem comprised of an access card interface subsystem. Receiving the user stimulus input stream from the user identifying interface subsystem is further comprised of receiving an access card input stream from the access card interface subsystem to create an access card input state. Processing the received user input state to create the financial access mechanism reference is comprised of processing the access card input state to create the financial access mechanism reference. Such embodiments advantageously utilize the access card input state to create the financial access mechanism reference.

Certain embodiments include the user identifying interface subsystem comprised of a user response subsystem. Receiving the user stimulus input stream from the user identifying interface subsystem is comprised of receiving a user stimulus input stream from the user response subsystem to create a received user input state. Processing the received user input state to create the financial access mechanism reference is comprised of processing the

access card input state and the received user input state to create the financial access mechanism reference. Such embodiments advantageously utilize the received user input state and access card input state to create the financial access mechanism reference.

- 5 Certain embodiments further include generating the user stimulus output stream from the received user input state and from the locale identification comprised of generating the user stimulus output stream from the received user input state and from the locale identification and from the access card input state. Such embodiments advantageously utilize the access card input  
10 state to generate the user stimulus output stream.

Certain embodiments further include the access card input state comprised of a financial access mechanism reference choice list comprised of at least one financial access mechanism reference choice. Processing the access card input state and the received user input state to create the financial access  
15 mechanism reference is comprised of selecting the financial access mechanism reference based upon the financial access mechanism reference choice list of the access card input state and based upon the received user input state. Such embodiments advantageously provide for an access card containing more than one reference to financial access mechanisms. By way  
20 of example, such an access card might contain references to a banking account and one or more credit cards.

Certain embodiments include the locale identification including a locale topographic database. Generating the user stimulus output stream is further comprised of generating the user stimulus output stream from locale  
25 identification including the locale topographic database based upon the user navigation input. Such embodiments advantageously provide user output generation based upon the locale topographic database and user navigation input. The locale topographic database provides the knowledge base for specialized maps to local merchants, facilities and attractions, as well as

travel direction to street addresses in the vicinity of the financial access vending machine.

Certain embodiments further include the locale identification including a local merchant collection comprised of at least one local merchant entry containing  
5 at least a merchant name and a merchant location. Generating the user stimulus output stream from the locale identification including the locale topographic database based upon the user navigation input is further comprised of the following. Selecting a first of the local merchant entries of the local merchant collection based upon the user navigation input. Generating  
10 the user stimulus output stream from the locale identification including the locale topographic database based upon the first local merchant entry of the local merchant collection. Such embodiments advantageously provide for generating the user stimulus output stream from the locale identification including the locale topographic database based upon the first local merchant  
15 entry of the local merchant collection.

Certain embodiments include generating the user stimulus output stream further comprised of generating a travel description to the merchant location of the first local merchant entry of the local merchant collection based upon locale identification including the locale topographic database. Such  
20 embodiments advantageously provide travel descriptions to the merchant location based upon the locale identification including the locale topographic database.

Certain embodiments include the locale identification including a default map. Generating a user stimulus output stream from the received user input state  
25 and from the locale identification is further comprised of generating the user stimulus output stream from the received user input state and from the default map included in the locale identification. Such embodiments advantageously support presentation of a default map to users. Such embodiments further advantageously provide quick answers to the most frequently asked locale-  
30 related questions.

Certain embodiments include maintaining a user input history collection. Such embodiments advantageously support collection of historical user input data, such as how often has the financial access vending machine been used, during what hours of the day, days of the week, etc.

- 5 Certain embodiments include maintaining a user input history collection comprising the following: Reviewing the received user input state to select a first of the user input history bins of the user input history collection. Modifying the first user input history bin of the user input history collection based upon the received user input state. Such embodiments advantageously provide for
- 10 the review of the received user input state and modification of a selected user input history bin.

- Certain embodiments include implementation of the methods discussed herein as program code segments of a program operating system residing in accessibly coupled memory to at least one computer of the computer system
- 15 controlling the financial access vending machine. Such methods advantageously provide locale identification-based interactions to users, facilitating location of various facilities. It becomes possible for users of such vending machines to find restaurants, transportation, accommodations and restrooms, to name just a few pieces of useful, locale-related information.

- 20 Certain embodiments include computer systems executing program operating systems controlling financial access vending machines supporting the methods discussed herein. Such methods advantageously provide locale identification-based interactions to users of such vending machines, facilitating location of various facilities. It becomes possible to find
- 25 restaurants, transportation, accommodations and restrooms, to name just a few pieces of useful, locale-related information.

Certain embodiments include the locale identification residing in the accessibly coupled memory of the computer of the computer system controlling the financial access vending machine. Such embodiments

advantageously support the locale identification residing in accessibly coupled memory.

Certain embodiments include a financial access vending network supporting financial access vending machines comprised of a financial access vending  
5 network collection comprising at least one financial access vending machine computer and a vending system server computer communicatively coupled to each of the financial access vending machine computers. A program operating system residing in the accessibly coupled computer memory of the vending system server computer is comprised of a program code segment  
10 supporting communication with each of the financial access vending machine computers belonging to the financial access network collection. Each program operating system residing in the accessibly coupled computer memory of each of the financial access vending machine computers belonging to the financial access network collection is further comprised of a program code  
15 segment supporting communication with the vending system server computer. Such embodiments advantageously provide a vending system server with communication between the financial access vending machine and the vending system server.

Certain embodiments include each program operating system residing in the  
20 accessibly coupled computer memory of each of the financial access vending machine computers belonging to the financial access network collection is further comprised of a program code segment supporting maintaining the locale identification. The program code segment supporting maintaining the locale identification is further comprised of a program code segment  
25 supporting maintaining the locale identification based upon receiving a locale identification maintenance message from the vending system server. The program operating system residing in the accessibly coupled computer memory of the vending system server computer is further comprised of a program code segment directing each of the financial access vending  
30 machine computers belonging to the financial access network collection in maintaining the locale identification of the financial access vending machine

computer. The program code segment directs each of the financial access vending machine computers belonging to the financial access network collection in maintaining the locale identification of the financial access vending machine computer.

- 5 Such embodiments advantageously provide vending system server direction of the maintenance of locale identification for the financial access vending machine computer systems with computer supporting locale identification.

Certain embodiments include a method of contracting between an identified user operating a financial access vending machine communicatively coupled  
10 to a financial access mechanism and the user financial access vending machine communicatively coupled to a merchant access mechanism. Such embodiments advantageously provide an assured mechanism of identification of the user of the financial access vending machine, an assured availability of funds from the financial access mechanism, and an assured offer from the  
15 merchant responsible for the merchant access mechanism, making a contract.

Certain embodiments include communication via the financial access mechanism supporting the contracting method. Such embodiments advantageously provide for centralized, secure communication through the  
20 financial access mechanism.

Certain embodiments include communication via a vending system server supporting the contracting method. Such embodiments advantageously provide for centralized, secure communication through the vending system server.

- 25 Certain embodiments include the merchant access mechanism receiving the offer acceptance message to create a contract comprised of the merchant access mechanism sending an offer acceptance acknowledgement message based upon the received offer acceptance message to the financial access

vending machine. Such embodiments advantageously provide an acknowledgement of the contract from the merchant access mechanism.

Certain embodiments include the financial access vending machine receiving the offer acceptance acknowledgement message to create a received offer  
5 acceptance acknowledgement message. Such embodiments advantageously provide reception of the merchant acknowledgement by the financial access vending machine.

Certain embodiments include the financial access vending machine receiving the offer acceptance acknowledgement message comprised of displaying the  
10 received offer acceptance acknowledgement message to create a confirmed contract to the identified user. Such embodiments advantageously provides notification to the identified user of the confirmed contract.

Certain embodiments include implementation of the methods discussed herein as program code segments of program operating systems residing in  
15 accessibly coupled memory to at least one computer of the computer system controlling the financial access vending machine, as well as the financial access mechanism computer and merchant access mechanism computer. Such embodiments advantageously provide an assured mechanism of identification of the user of the financial access vending machine, an assured  
20 availability of funds from the financial access mechanism, and assured offer from the merchant responsible for the merchant access mechanism making a contract.

Certain embodiments include systems of implementing the methods discussed herein as program code segments of program operating systems  
25 residing in accessibly coupled memory to at least one computer of the computer system controlling the financial access vending machine, as well as the financial access mechanism computer and merchant access mechanism computer. Such embodiments advantageously provide an assured mechanism of identification of the user of the financial access vending  
30 machine, an assured availability of funds from the financial access

mechanism, and an assured offer from the merchant responsible for the merchant access mechanism, making a contract.

Certain embodiments include another method of controlling a financial access vending machine. The financial access vending machine contains a user  
5 identifying interface subsystem and a local user access profile collection of local access profile nodes. The user identifying interface subsystem is used to identify a user. The local user access profile collection is used to generate the user stimulus output stream. The recognition of the identified user from the user stimulus input stream modifies the local user access profile  
10 collection. Such embodiments advantageously provide a user specific interface to the financial access vending machine through the local user access profile collection. This allows for a customer-optimized interface, which benefits both the financial access vending machine owner and the financial access vending machine user.

15 Certain embodiments include another method of controlling a financial access vending machine. The financial access vending machine contains a user identifying interface subsystem including a motion video display. The user stimulus output stream contains a motion video stream sent to the motion video display. Such embodiments advantageously provide the user interface  
20 to the financial access vending machine with motion video, supporting advertising, news and other motion related presentation capabilities.

Certain embodiments include a financial access vending network comprised of a financial access vending network collection comprising at least one financial access vending machine computer and a vending system server  
25 computer communicatively coupled to each of the financial access vending machine computers. A program operating system residing in the accessibly coupled computer memory of the vending system server computer is comprised of a program code segment supporting communication with each of the financial access vending machine computers belonging to the financial  
30 access network collection. Each program operating system residing in the



accessibly coupled computer memory of each of the financial access vending machine computers belonging to the financial access network collection is further comprised of a program code segment supporting communication with the vending system server computer. The vending system server computer  
5 sends messages to each of the financial access vending machine computers on a real-time basis, supporting the specific identified users operating the financial access vending machines with the real-time information. Such embodiments advantageously provide a vending system server and communication between the financial access vending machine and the  
10 vending system server of real-time information such as sporting event scores, weather reports and stock market quotations.

These and other advantages of the present invention will become apparent upon reading the following detailed descriptions and studying the various figures of the drawings.

15 Brief Description of the Drawings

Figure 1 depicts a vending machine controller 100 as found in the prior art;

Figure 2 depicts a prior art system containing multiple vending machine controllers 100-1 to 100-6 interfaced to a vending network server 220 which is in turn coupled 302 to a financial network 300;

20 Figure 3 depicts a typical user interface 400 for a vending machine containing a keypad array 410-1 to 410-12, a user view screen 420, access card insertion slot 430, printer output slot 440 and cash dispenser 450;

Figure 4 depicts a simplified block diagram of a computer system 1000 to control a financial access vending machine supporting locale identification in  
25 accordance with certain embodiments;

Figure 5 depicts a flowchart performing basic operations controlling the financial access vending machine in accordance with certain embodiments;

Figure **6A** depicts a detail flowchart of operation **2004** of Figure 5 performing processing the received user input state to create user navigation input in accordance with certain embodiments;

5 Figure **6B** depicts a detail flowchart of operation **2012** of Figure 5 performing generating the user stimulus output stream from the received user input state, the locale identification and based upon the user navigation input in accordance with certain embodiments;

10 Figure **6C** depicts a detail flowchart of operation **2004** of Figure 5 performing processing the received user input state to create a financial access mechanism reference in accordance with certain embodiments;

Figure **7A** depicts a detail flowchart of operation **2000** of Figure 5 further performing activating the financial access mechanism reference to create an activated financial access mechanism in accordance with certain embodiments;

15 Figure **7B** depicts a detail flowchart of operation **2004** of Figure 5 performing processing the received user input state to create a user identification in accordance with certain embodiments;

20 Figure **7C** depicts a detail flowchart of operation **2112** of Figure **7A** performing activating the financial access mechanism reference based upon the user identification to create an activated financial access mechanism in accordance with certain embodiments;

25 Figure **8A** depicts a detail flowchart of operation **2012** of Figure 5 performing generating the user stimulus output stream from the received user input state and from the locale identification and based upon the user navigation input and based upon the user identification in accordance with certain embodiments;

Figure **8B** depicts a detail flowchart of operation **2000** of Figure **5** further performing maintaining the locale identification in accordance with certain embodiments;

Figure **9** depicts a detail flowchart of operation **2000** of Figure **5** performing  
5 messaging with the activated financial mechanism in accordance with certain embodiments;

Figure **10A** depicts a detail flowchart of operation **2004** of Figure **5** performing processing the received user input state to create a financial transaction request message as the outgoing financial message in accordance with  
10 certain embodiments;

Figure **10B** depicts a detail flowchart of operation **2212** of Figure **9** performing determining a received financial transaction response message type from the received financial message in accordance with certain embodiments;

Figure **10C** depicts a detail flowchart of operation **2000** of Figure **5** performing  
15 processing the received financial message to create a financial transaction response when finding the received financial transaction message type of the received financial message;

Figure **11A** depicts a detail flowchart of operation **2272** of Figure **10C** further performing processing the received financial message to create a financial  
20 transaction response when finding the received financial transaction message type of the received financial message in accordance with certain embodiments;

Figure **11B** depicts a detail flowchart of operation **2004** of Figure **5** performing processing the received user input state to create a merchant access request  
25 containing a merchant access identifier in accordance with certain embodiments;

Figure **11C** depicts a detail flowchart of operation **2000** of Figure **5** performing opening a merchant access mechanism based upon the merchant access

request containing the merchant access identifier in accordance with certain embodiments;

Figure **12A** depicts a detail flowchart of operation **2000** of Figure 5 performing receiving a merchant offer message from the merchant access mechanism in  
5 accordance with certain embodiments;

Figure **12B** depicts a detail flowchart of operation **2012** of Figure 5 performing inserting the merchant offer message into the user stimulus output stream in accordance with certain embodiments;

Figure **13** depicts a detail flowchart of operation **2004** of Figure 5 further  
10 performing creating a user acceptance state and an acceptance financial access request message in accordance with certain embodiments;

Figure **14A** depicts a detail flowchart of operation **2352** of Figure **12A** performing determining a confirmation financial response message type from the received financial message in accordance with certain embodiments;

15 Figure **14B** depicts a detail flowchart of operation **2000** of Figure 5 further performing generating and sending a user acceptance message based upon receipt of a financial access confirmation message in accordance with certain embodiments;

Figure **15A** depicts a detail flowchart of operation **2000** of Figure 5 further  
20 performing receiving an acknowledgement message of the user acceptance message and creating a financial acknowledgement message in accordance with certain embodiments;

Figure **15B** depicts a detail flowchart of operation **2000** of Figure 5 further  
25 performing creating a dispenser command and operating the dispenser subsystem based upon the dispenser command in accordance with certain embodiments;

Figure **16** depicts a simplified block diagram of computer system **1000** further containing a dispenser subsystem interface **1500** communicatively coupled **1108** to computer **1100** in accordance with certain further embodiments;

Figure **17** depicts a simplified system block diagram of dispenser subsystem interface **1500** in accordance with certain embodiments;

Figure **18A** depicts a detail flowchart of operation **2000** of Figure **5** performing operating the dispenser system based upon receiving a merchant dispenser command message in accordance with certain embodiments;

Figure **18B** depicts a detail flowchart of operation **2492** of Figure **18A** further performing operating the dispenser system based upon receiving the merchant dispenser command message in accordance with certain embodiments;

Figure **19A** depicts a detail flowchart of operation **2212** of Figure **9** performing determining an approval response message type of a dispenser command permission message from the received financial message in accordance with certain embodiments;

Figure **19B** depicts a detail flowchart of operation **2516** of Figure **18B** further performing creating a merchant dispenser command based upon the received merchant dispenser command message in accordance with certain embodiments;

Figure **20A** depicts a detail flowchart of operation **2212** of Figure **9** performing determining a local user access profile maintenance message type from the received financial message in accordance with certain embodiments;

Figure **20B** depicts a detail flowchart of operation **2192** of Figure **8 B** performing maintaining the local user access profile collection based upon the local user access profile maintenance message type of the received financial message in accordance with certain embodiments;

Figure **21A** depicts a detail flowchart of operation **2000** of Figure **5** further performing creating a dispenser command and operating the dispenser subsystem based upon the dispenser command in accordance with certain embodiments;

- 5 Figure **21B** depicts a detail flowchart of operation **2212** of Figure **9** performing determining a dispenser command option message type from the received financial message in accordance with certain embodiments;

- Figure **21C** depicts a detail flowchart of operation **2012** of Figure **5** performing generating the user stimulus output stream from the received user input state  
10 and the locale identification based upon the dispenser command option message type of the received financial message in accordance with certain embodiments;

- Figure **22A** depicts a detail flowchart of operation **2556** of Figure **19B** further creating the merchant dispenser command based upon the received  
15 merchant dispenser command message, the approval response message type-dispenser command permission message from the received financial message in accordance with certain embodiments;

- Figure **22B** depicts a detail flowchart of operation **2592** of Figure **20B** further performing maintaining the local user access profile collection based upon the  
20 local user access profile maintenance message type of the received financial message in accordance with certain embodiments;

- Figure **23A** depicts a detail flowchart of operation **2652** of Figure **21C** further performing generating the user stimulus output stream from the received user input state and the locale identification based upon the dispenser command  
25 option message type of the received financial message, in accordance with certain embodiments;

Figure **23B** depicts a detail flowchart of operation **2004** of Figure **5** performing processing the received user input state to create a user dispenser option command in accordance with certain embodiments;

Figure **23C** depicts a detail flowchart of operation **2612** of Figure **21A** performing creating the dispenser command based upon the user dispenser option command in accordance with certain embodiments;

Figure **24A** depicts a detail flowchart of operation **2212** of Figure **9** performing  
5 determining a dispenser command message type from the received financial message in accordance with certain embodiments;

Figure **24B** depicts a detail flowchart of operation **2612** of Figure **21A** performing creating the dispenser command based upon the dispenser command message type from the received financial message in accordance  
10 with certain embodiments;

Figure **24C** depicts a detail flowchart of operation **2192** of Figure **8B** performing maintaining the locale identification based upon the activated financial access mechanism in accordance with certain embodiments;

Figure **25A** depicts a detail flowchart of operation **2792** of Figure **24B** further  
15 performing creating the dispenser command based upon the dispenser command message type from the received financial message in accordance with certain embodiments;

Figure **25B** depicts a detail flowchart of operation **2192** of Figure **8B** performing maintaining the locale identification based upon the activated  
20 financial access mechanism and based upon the user identification, in accordance with certain embodiments;

Figure **25C** depicts a detail flowchart of operation **2192** of Figure **8B** performing maintaining the locale identification based upon the user identification, in accordance with certain embodiments;

Figure **26A** depicts a detail flowchart of operation **2192** of Figure **8B** performing creating a first local access profile node in the local user access profile collection in accordance with certain embodiments;

25

Figure **26B** depicts a detail flowchart of operation **2192** of Figure **8 B** performing deleting a first local access profile node from the local user access profile collection in accordance with certain embodiments;

Figure **26C** depicts a detail flowchart of operation **2192** of Figure **8 B**  
5 performing modifying a first local access profile node in the local user access profile collection in accordance with certain embodiments;

Figure **27** depicts locale identification **1400** including a local user access profile collection **1410** in accordance with certain embodiments;

Figure **28A** depicts a detail flowchart of operation **2012** of Figure **5** further  
10 performing generating the user stimulus output stream from the received user input state, the locale identification, with a first local access profile node containing a textual presentation content, in accordance with certain embodiments;

Figure **28B** depicts a detail flowchart of operation **2012** of Figure **5** further  
15 performing generating the user stimulus output stream from the received user input state, the locale identification, with a first local access profile node containing a graphical presentation content, in accordance with certain embodiments;

Figure **29A** depicts a detail flowchart of operation **2976** of Figure **28B**  
20 performing generating the user stimulus output stream from the received user input state and from the motion video presentation content of the presentation node in accordance with certain embodiments;

Figure **29B** depicts a detail flowchart of operation **2012** of Figure **5** further  
25 performing generating the user stimulus output stream from the received user input state and from the locale identification, with a first local access profile node containing a synchronized audio presentation content, in accordance with certain embodiments;



Figure **30A** depicts a detail flowchart of operation **2004** of Figure 5 performing processing the received user input state based upon the first local access profile node containing the link to the second local access profile node to create a user node selection in accordance with certain embodiments;

- 5     Figure **30B** depicts a detail flowchart of operation **2012** of Figure 5 performing generating the user stimulus output stream from the received user input state and the locale identification based upon the user node selection in accordance with certain embodiments;

- 10    Figure **31A** depicts a presentation node collection **1600** comprising **1602** presentation reference **1610** associated **1612** with local access profile node **1420** of **1412** local user access profile collection **1410** included **1402** in locale identification **1400**, in accordance with certain embodiments;

- 15    Figure **31B** depicts user navigation command collection **1700** comprising a select node command **1710**, a delete node command **1720** and a reset node list command **1730**, in accordance with certain embodiments;

Figure **32A** depicts a detail flowchart of operation **2000** of Figure 5 further performing maintaining a presentation node collection comprising at least one presentation reference to an associated local access profile node of the local user access profile collection in accordance with certain embodiments;

- 20    Figure **32B** depicts a detail flowchart of operation **2012** of Figure 5 performing generating the user stimulus output stream from the received user input state, the locale identification based upon the user navigation input, the user identification and the presentation node collection in accordance with certain embodiments;

- 25    Figure **33A** depicts a detail flowchart of operation **3072** of Figure **32A** further performing maintaining the presentation node collection comprising presentation references to the associated local access profile node of the local user access profile collection in accordance with certain embodiments;

Figure **33B** depicts a detail flowchart of operation **3112** of Figure **33A** further performing selecting a first local access profile node to create a first presentation reference of the presentation node collection when the user navigation input includes the select node command in accordance with certain  
5   embodiments;

Figure **34A** depicts a detail flowchart of operation **3122** of Figure **33B** further performing removing the first presentation reference of the presentation node collection of the associated local access profile node when the user navigation input includes the remove node command in accordance with  
10   certain embodiments;

Figure **34B** depicts a detail flowchart of operation **3132** of Figure **33A** further performing resetting at least the first presentation reference of the presentation node collection when the user navigation input includes the reset node list command in accordance with certain embodiments;

15   Figure **35** depicts a simplified system block diagram of computer **1100** communicatively coupled **1106** with user identifying interface subsystem **1300**, as shown in Figure 4 which comprises various subsystems in accordance with certain embodiments;

Figure **36** depicts a more detailed system block diagram of user identifying  
20   interface subsystem **1300** with its communicative coupling **1106** as shown in Figure 35 further comprising coupled subsystems in accordance with certain embodiments;

Figure **37A** depicts a detail flowchart of operation **2022** of Figure 5 performing sending the user stimulus output stream to the user presentation subsystem  
25   in accordance with certain embodiments;

Figure **37B** depicts a detail flowchart of operation **2004** of Figure 5 performing receiving a user stimulus input stream from the user response subsystem to create the received user input state in accordance with certain embodiments;

Figure **38A** depicts a user output stimulus stream **1700** and several output stimulus streams contained in the user stimulus output stream, as well as user stimulus input stream **1800**, received user input state **1810** and various derived components from received user input state, in accordance with certain  
5   embodiments;

Figure **38B** depicts a detail flowchart of operation **2022** of Figure **5** performing sending the user video output stream to the user video subsystem in accordance with certain embodiments;

Figure **39A** depicts a detail flowchart of operation **2004** of Figure **5** performing  
10   receiving the user tactile input stream from the user tactile input subsystem to create a received user tactile input state in accordance with certain embodiments;

Figure **39B** depicts a detail flowchart of operation **2012** of Figure **5** performing processing the received user tactile input state to create a user identification  
15   state in accordance with certain embodiments;

Figure **40** depicts a detail flowchart of operation **2132** of Figure **7B** further performing processing the received user input state to create the user identification in accordance with certain embodiments;

Figure **41A** depicts a detail flowchart of operation **2004** of Figure **5** performing  
20   receiving a user tactile input stream from the user tactile input subsystem to create a user tactile input state, in accordance with certain embodiments where the user identifying interface subsystem comprises a user tactile input subsystem;

Figure **41B** depicts a detail flowchart of operation **3332** of Figure **41A**  
25   performing receiving a user handprint sensor input state from the user handprint sensor subsystem in accordance with certain embodiments;

Figure **41C** depicts a detail flowchart of operation **3332** of Figure **41A** performing receiving a user retinal sensor input state from the user retinal sensor subsystem in accordance with certain embodiments;

Figure **42A** depicts a detail flowchart of operation **3332** of Figure **41A** performing receiving a user photographic sensor input state from the user photographic sensor subsystem in accordance with certain embodiments;

Figure **42B** depicts a detail flowchart of operation **3332** of Figure **41A** performing receiving a user acoustic sensor input stream from the user acoustic sensor subsystem to create a user acoustic sensor input state in accordance with certain embodiments;

Figure **42C** depicts a detail flowchart of operation **3332** of Figure **41A** performing receiving a user touch keypad input state from the user touch keypad input subsystem in accordance with certain embodiments;

Figure **43A** depicts a detail flowchart of operation **2004** of Figure **5** performing receiving an access card input stream from the access card interface subsystem to create an access card input state in accordance with certain embodiments;

Figure **43B** depicts a detail flowchart of operation **2112** of Figure **7A** further performing activating the financial access mechanism reference to create the activated financial access mechanism in accordance with certain embodiments;

Figure **44** depicts a detail flowchart of operation **3476** of Figure **43B** further performing using the financial access mechanism reference message to create the activated financial access mechanism in accordance with certain embodiments;

Figure **45** depicts a detail flowchart of operation **3476** of Figure **43B** further performing using the financial access mechanism reference message to

create the activated financial access mechanism in accordance with certain embodiments;

Figure 46 depicts a detail flowchart of operation 3476 of Figure 43B further performing using the financial access mechanism reference message to  
5 create the activated financial access mechanism in accordance with certain embodiments;

Figure 47A depicts a detail flowchart of operation 2004 of Figure 5 performing receiving an access card input stream from the access card interface subsystem to create an access card input state in accordance with certain  
10 embodiments;

Figure 47B depicts a detail flowchart of operation 2092 of Figure 6 C performing processing the access card input state to create the financial access mechanism reference in accordance with certain embodiments;

Figure 47C depicts a detail flowchart of operation 2004 of Figure 5 performing  
15 receiving a user response input stream from the user response subsystem to create a received user response state in accordance with certain embodiments;

Figure 48A depicts a detail flowchart of operation 2092 of Figure 6 C performing processing the access card input state and the received user  
20 response state to create the financial access mechanism reference in accordance with certain embodiments;

Figure 48B depicts a detail flowchart of operation 2012 of Figure 5 performing generating the user stimulus output stream from the received user input state and from the locale identification and from the access card input state in  
25 accordance with certain embodiments;

Figure 48C depicts a detail flowchart of operation 3632 of Figure 48A performing selecting the financial access mechanism reference based upon the financial access mechanism reference choice list of the access card input

state and based upon the received user response state in accordance with certain embodiments;

Figure 49 depicts an access card input state **1900** and various components associated with access card input state **1900** in accordance with certain  
5   embodiments;

Figure 50 depicts various components included in locale identification **1400** in accordance with certain embodiments;

Figure 51A depicts a detail flowchart of operation **2072** of Figure 6 B performing generating the user stimulus output stream from the received user  
10   input state and from the locale identification including the locale topographic database based upon the user navigation input in accordance with certain embodiments;

Figure 51B depicts a detail flowchart of operation **3692** of Figure 51A further performing generating the user stimulus output stream from the received user  
15   input state and from the locale identification including the locale topographic database based upon the user navigation input in accordance with certain embodiments;

Figure 52A depicts a detail flowchart of operation **3716** of Figure 51B performing generating a travel description from the financial access vending  
20   machine to the merchant location of the first local merchant entry of the local merchant collection based upon the locale topographic database in accordance with certain embodiments;

Figure 52B depicts a detail flowchart of operation **2022** of Figure 5 performing generating the user stimulus output stream from the received user input state  
25   and from the default map included in the locale identification in accordance with certain embodiments;

Figure 53A depicts a detail flowchart of operation 2000 of Figure 5 performing maintaining a user input history collection comprised of at least one user input history bin in accordance with certain embodiments;

Figure 53B depicts a detail flowchart of operation 3772 of Figure 53A further performing maintaining a user input history collection comprised of at least one user input history bin in accordance with certain embodiments;

Figure 54 depicts a displayed user output stream on a user video screen 5000 indicating 5120 that the user should enter a PIN number, which will be displayed in region 5110, in accordance with certain embodiments;

Figure 55 depicts a displayed user output stream on a user video screen 5000 indicating a transaction region 5200 and an advertising region 5240, in accordance with certain embodiments;

Figure 56 depicts a displayed user output stream on a user video screen 5000 indicating a transaction region 5300 and an advertising region 5360, in accordance with certain embodiments;

Figure 57 depicts a displayed user output stream on a user video screen 5000 indicating an advertising region 5370, in accordance with certain embodiments;

Figure 58 depicts a displayed user output stream on a user video screen 5000 indicating a transaction region 5400 and an advertising region 5410, in accordance with certain embodiments;

Figure 59 depicts a displayed user output stream on a user video screen 5000 indicating a transaction status region 5412 and an advertising region 5410 presenting a mercantile offer to contract, in accordance with certain embodiments;

Figure 60 depicts a displayed user output stream on a user video screen 5000 indicating a transaction status region 5512 and an advertising region 5510

showing acknowledgement of the user acceptance of a mercantile offer to contract creating a contract, in accordance with certain embodiments;

Figure 61 depicts a displayed user output stream on a user video screen 5000 indicating a transaction region 5800, in accordance with certain embodiments;

5 Figure 62 depicts a displayed user output stream on a user video screen 5000 indicating a transaction region 5900, in accordance with certain embodiments;

Figure 63 depicts a displayed user output stream on a user video screen 5000 indicating a transaction region 6000, in accordance with certain embodiments;

10 Figure 64 depicts a displayed user output stream on a user video screen 5000 indicating a transaction region 6100, in accordance with certain embodiments;

Figure 65 depicts a displayed user output stream on a user video screen 5000 indicating a displayed map 6200, in accordance with certain embodiments;

15 Figure 66 depicts a collection of object families contained in a program operating system residing in accessibly coupled computer memory of at least one computer in a computer system 1000 controlling a financial access vending machine in accordance with certain embodiments;

20 Figure 67 depicts a simplified system level diagram of the various communicative couplings of financial access vending machines 1000 and financial access mechanisms 8100 including financial access mechanism servers 8110, merchant access mechanisms 8200, vending system servers 8000, and other entities in accordance with certain embodiments;

Figure 68 depicts a simplified block diagram of a computer system 1000 to control a financial access vending machine supporting a local user access profile collection in accordance with certain embodiments;

25 Figure 69 depicts a flowchart performing a method of contracting between an identified user operating a financial access vending machine communicatively coupled to a financial access mechanism and the user financial access



vending machine communicatively coupled to a merchant access mechanism in accordance with certain embodiments;

Figure 70A depicts a detail flowchart of operation 3826 of Figure 69 performing the merchant access mechanism sending an offer acceptance acknowledgement message based upon the received offer acceptance message to the financial access vending machine in accordance with certain embodiments;

Figure 70B depicts a detail flowchart of operation 3810 of Figure 69 performing the financial access vending machine receiving the offer acceptance acknowledgement message to create a received offer acceptance acknowledgement message in accordance with certain embodiments; and

Figure 70C depicts a detail flowchart of operation 3872 of Figure 70B performing displaying the received offer acceptance acknowledgement message to create a confirmed contract message to the identified user in accordance with certain embodiments.

#### Detailed Description of the Invention

Figure 4 depicts a simplified block diagram of a computer system 1000 to control a financial access vending machine supporting locale identification in accordance with certain embodiments.

Computer system 1000 comprises a computer 1100 accessibly coupled 1102 to computer memory 1200. As used herein a computer system comprises at least one computer accessibly coupled to a computer memory. In certain embodiments, computer system 1000 comprises at least two computers, each with separate accessibly coupled computer memories. In certain embodiments, computer system 1000 comprises at least two computers, each sharing an accessibly coupled computer memory.

As used herein, accessibly coupled computer memory 1200 includes at least a non-volatile memory. The non-volatile memory may be comprised of more

than one non-volatile memory component. Access to a non-volatile memory component may be further organized about a file management system. Accessibly coupled memory 1200 may further include a volatile memory. Volatile memory may be comprised of more than one volatile memory component. Volatile memory components may include but are not limited to static RAM and various forms of Dynamic RAM. Access to a volatile memory component may be further organized as a cache memory interface to an often larger and slower memory component, which may be either volatile or non-volatile. The cache memory interface may be further multi-leveled, where successive levels of the cache memory incorporate a slower memory transfer rate to (an often) larger amount of memory.

As used herein, computer refers to an instruction-processing computer, an inference engine or an analog computer. An instruction-processing computer as used herein refers to either a Single Instruction Single Datapath (SISD) computer, Single Instruction Multiple Datapath (SIMD) computer, Multiple Instruction Single Datapath (MISD) computer, or a Multiple Instruction Multiple Datapath (MIMD) computer. Examples of SISD computers include microprocessors. Microprocessors as used herein, include super-scalar microprocessors, which concurrently execute components of several successive instructions of a single instruction stream involving a single datapath. Instruction processing mechanisms include but are not limited to native code execution mechanisms such as found in a 80x086 microprocessor, byte code interpreters such as JAVA and MPEG 4 use, threaded execution structures such as FORTH and Postscript use, or combinations of the above.

As used herein, inference engines operate upon a fact based and an inference rule collection. Execution of inference engines may be based upon unification processes, constraint satisfaction mechanisms and neural network threshold-stimuli mechanisms. Instructions as used herein for such inference engines would include the facts and inference rules presented to the inference engine.

As used herein, analog computers include but are not limited to circuitry composed exclusively of analog circuit, or devices of mixed analog and digital circuitry. Instructions presented to analog computer will either provide a pattern or set internal controls. The internal controls may be addressable and  
5 may further include branching mechanisms which would be triggered either by time durations or through application of thresholding decision functions. Examples of such controls include use of different filter coefficients for voices speaking the same language with distinctive accents.

By way of example, a device including a Charge Coupled Device (CCD)  
10 combined with a signal processing subsystem may well serve as a fingerprint based user identification device, and would primarily employ analog input and produce a digital output characterizing the fingerprint. The instructions for this device would be fairly straightforward, primarily accounting for specific filters to normalize background skins coloration and lighting effects such as  
15 scratches on the fingerprint portal and ambient lighting. Alternatively, a digital characterization of the expected fingerprint might be input, and a simple match-no match result might be the usual output of the device. In such cases, the device would be considered an essentially analog computer whose instruction processing mechanism would be the digital fingerprint pattern.

20 As used herein, program code segments refer to collections of instructions collectively performing some operation, which could operate an instruction processor, inference engine or analog computer. Distinct program code segments could employ distinct instruction formats and operate distinct computers. By way of example, certain program code segments could be in  
25 native code for an 80x86 microprocessor, while other program code segments could be written in JAVA™ and yet other program code segments could be written in HTML (Hyperlink Text Markup Language). Still other program code segments could provide a fingerprint characterization. Still other program code segments could provide a voice print characterization.

Still other program code segments could provide a rules collection to determine appropriate advertising for the day of the week and the location of the financial access vending machine as well as other stored information and user preferences. Still other program code segments could provide a collection of MPEG 4 streams containing different financial and/or mercantile advertising and offers.

Computer system **1000** further comprises a user identifying interface subsystem **1300** communicatively coupled **1106** with computer **1100**. User identifying subsystem **1300** includes at least one mechanism presenting a user stimulus output stream to a user and at least one mechanism by which computer system **1000** is stimulated by a user to generate a user stimulus input stream. Embodiments of this subsystem will be discussed in greater detail later. User identifying interface subsystem **1300** can gather information sufficient to adequately identify the user for purposes of transacting financial and mercantile exchanges and agreements. In certain further embodiments, user identifying interface subsystem **1300** further provides the user with mercantile offers, selection capability for financial and mercantile transactions and presentation of graphical data including at least one of the collection of presentation of maps and motion video.

Computer system **1000** further comprises locale identification **1400** communicatively coupled **1104** with computer **1100**. In certain embodiments, locale identification **1400** contains an encapsulated system component coupled by an internal communication transport layer **1104** to computer **1100**. Such an internal communication transport layer **1104** may be wireline in certain further embodiments. In certain further embodiments, the wireline transport layer **1104** includes an optical fiber, coaxial cable, twisted pair, ribbon cable, or buss strips on a printed circuit board. In certain further embodiments, locale identification **1400** encapsulated system component further contains nonvolatile memory. In certain further embodiments, local identification **1400** encapsulated system component contains writable nonvolatile memory. In certain further embodiments, at least a part of the

nonvolatile memory of locale identification **1400** encapsulated system component is organized and accessed as a file management system. In certain other further embodiments, locale identification **1400** encapsulated system component contains write-once nonvolatile memory.

- 5 In certain embodiments, locale identification **1400** resides in part of computer memory **1200**. In certain further embodiments, local identification **1400** resides in a portion of at least one nonvolatile memory component of computer memory **1200**. In certain further embodiments, locale identification **1400** is organized and accessed **1104** as a file management system.
- 10 In certain embodiments, communicative coupling **1104** between local identification **1400** and computer **1100** employs coding technology. Coding technology as used herein will refer to error detection codes, error detection and correction codes, encryption codes and combinations of these coding technologies. In certain further embodiments, communicative coupling **1104**
- 15 employs distinct coding technologies depending upon whether the computer **1100** is performing reading or writing access of locale identification **1400**.

The financial access vending machine is controlled by the computer system **1000** executing a program operating system of program code segments residing in the accessibly coupled computer memory of at least one of the

20 computers of the computer system.

A program operating system is a collection of program code segments residing in the memory of one or more computers comprising the computing system **1000**. A program operating system serves as an overall organization for the performance of the operations, which may be performed in an

25 essentially concurrent manner on one or more of the computers comprising the computer system controlling the financial access vending machine.

Figure 5 depicts a flowchart performing basic operations controlling the financial access vending machine in accordance with certain embodiments.

Operation **2000** starts the operations of this flowchart. Arrow **2002** directs the flow of execution from operation **2000** to operation **2004**. Operation **2004** performs receiving a user stimulus input stream from the user identifying interface subsystem to create a received user input state. Arrow **2006** directs execution from operation **2004** to operation **2008**. Operation **2008** terminates the operations of this flowchart.

Arrow **2010** directs the flow of execution from starting operation **2000** to operation **2012**. Operation **2012** performs generating a user stimulus output stream from the received user input state and from the locale identification. Arrow **2014** directs execution from operation **2012** to operation **2008**. Operation **2008** terminates the operations of this flowchart.

Arrow **2020** directs the flow of execution from starting operation **2000** to operation **2022**. Operation **2022** performs sending the user stimulus output stream to the user identifying interface subsystem. Arrow **2024** directs execution from operation **2022** to operation **2008**. Operation **2008** terminates the operations of this flowchart.

A program code segment may be further comprised of a collection of more than one program code segment. These separate program code segments may be comprised of instructions in distinct languages, executing concurrently on distinct computers within the computer system.

In certain embodiments, one program code segment may be executing on a specialized graphics computer (not shown in the diagrams) to implement generation of an MPEG motion video stream as part of generating the user stimulus output stream. In certain embodiments, a second program code segment may be concurrently executing on a (Digital Signal Processing) DSP computer (not shown in the diagrams) to implement generation of an associated compressed audio stream as part of generating the user stimulus output stream. In certain embodiments, a third program code segment may be concurrently executing on computer **1100** to receive the user stimulus input

stream from the user identifying interface to create at least part of the received user input state.

Figure **6A** depicts a detail flowchart of operation **2004** of Figure **5** performing processing the received user input state to create user navigation input in accordance with certain embodiments.

Arrow **2050** directs the flow of execution from starting operation **2004** to operation **2052**. Operation **2052** performs processing the received user input state to create a user navigation input. Arrow **2054** directs execution from operation **2052** to operation **2056**. Operation **2056** terminates the operations of this flowchart.

Figure **6B** depicts a detail flowchart of operation **2012** of Figure **5** performing generating the user stimulus output stream from the received user input state and the locale identification and based upon the user navigation input in accordance with certain embodiments.

Arrow **2070** directs the flow of execution from starting operation **2012** to operation **2072**. Operation **2072** performs generating the user stimulus output stream from the received user input state and from the locale identification and based upon the user navigation input. Arrow **2074** directs execution from operation **2072** to operation **2076**. Operation **2076** terminates the operations of this flowchart.

Figure **6C** depicts a detail flowchart of operation **2004** of Figure **5** performing processing the received user input state to create a financial access mechanism reference in accordance with certain embodiments.

Arrow **2090** directs the flow of execution from starting operation **2004** to operation **2092**. Operation **2092** performs processing the received user input state to create a financial access mechanism reference. Arrow **2094** directs execution from operation **2092** to operation **2096**. Operation **2096** terminates the operations of this flowchart.

Figure 7A depicts a detail flowchart of operation 2000 of Figure 5 further performing activating the financial access mechanism reference to create an activated financial access mechanism in accordance with certain embodiments.

- 5 Arrow 2110 directs the flow of execution from starting operation 2000 to operation 2112. Operation 2112 performs activating the financial access mechanism reference to create an activated financial access mechanism. Arrow 2114 directs execution from operation 2112 to operation 2116. Operation 2116 terminates the operations of this flowchart.

- 10 Figure 7B depicts a detail flowchart of operation 2004 of Figure 5 performing processing the received user input state to create a user identification in accordance with certain embodiments.

- Arrow 2130 directs the flow of execution from starting operation 2004 to operation 2132. Operation 2132 performs processing the received user input state to create a user identification. Arrow 2134 directs execution from  
15 operation 2132 to operation 2136. Operation 2136 terminates the operations of this flowchart.

- Figure 7C depicts a detail flowchart of operation 2112 of Figure 7A performing activating the financial access mechanism reference based upon the user  
20 identification to create an activated financial access mechanism in accordance with certain embodiments.

- Arrow 2150 directs the flow of execution from starting operation 2112 to operation 2152. Operation 2152 performs activating the financial access mechanism reference based upon the user identification to create an  
25 activated financial access mechanism. Arrow 2154 directs execution from operation 2152 to operation 2156. Operation 2156 terminates the operations of this flowchart.

Figure 8A depicts a detail flowchart of operation 2012 of Figure 5 performing generating the user stimulus output stream from the received user input state



and from the locale identification and based upon the user navigation input and based upon the user identification in accordance with certain embodiments.

Arrow **2170** directs the flow of execution from starting operation **2012** to operation **2172**. Operation **2172** performs generating the user stimulus output stream from the received user input state and from the locale identification and based upon the user navigation input and based upon the user identification. Arrow **2174** directs execution from operation **2172** to operation **2176**. Operation **2176** terminates the operations of this flowchart.

Figure **8B** depicts a detail flowchart of operation **2000** of Figure 5 further performing maintaining the locale identification in accordance with certain embodiments.

Arrow **2190** directs the flow of execution from starting operation **2000** to operation **2192**. Operation **2192** performs maintaining the locale identification. Arrow **2194** directs execution from operation **2192** to operation **2196**. Operation **2196** terminates the operations of this flowchart.

Figure 9 depicts a detail flowchart of operation **2000** of Figure 5 performing messaging with the activated financial mechanism in accordance with certain embodiments.

Arrow **2210** directs the flow of execution from starting operation **2000** to operation **2212**. Operation **2212** performs receiving a financial message from the activated financial access mechanism to create a received financial message. Arrow **2214** directs execution from operation **2212** to operation **2216**. Operation **2216** terminates the operations of this flowchart.

Arrow **2220** directs the flow of execution from starting operation **2000** to operation **2222**. Operation **2222** performs sending an outgoing financial message to the activated financial access mechanism. Arrow **2224** directs execution from operation **2222** to operation **2216**. Operation **2216** terminates the operations of this flowchart.

Figure **10A** depicts a detail flowchart of operation **2004** of Figure 5 performing processing the received user input state to create a financial transaction request message as the outgoing financial message in accordance with certain embodiments.

5 Arrow **2230** directs the flow of execution from starting operation **2004** to operation **2232**. Operation **2232** performs processing the received user input state to create a financial transaction request message as the outgoing financial message. Arrow **2234** directs execution from operation **2232** to operation **2236**. Operation **2236** terminates the operations of this flowchart.

10 Figure **10B** depicts a detail flowchart of operation **2212** of Figure 9 performing determining a received financial transaction response message type from the received financial message in accordance with certain embodiments.

Arrow **2250** directs the flow of execution from starting operation **2212** to operation **2252**. Operation **2252** performs determining a received financial transaction response message type from the received financial message.  
15 Arrow **2254** directs execution from operation **2252** to operation **2256**. Operation **2256** terminates the operations of this flowchart.

Figure **10C** depicts a detail flowchart of operation **2000** of Figure 5 performing processing the received financial message to create a financial transaction response when finding the received financial transaction message type of the received financial message.  
20

Arrow **2270** directs the flow of execution from starting operation **2000** to operation **2272**. Operation **2272** performs processing the received financial message to create a financial transaction response when finding the received financial transaction message type of the received financial message. Arrow  
25 **2274** directs execution from operation **2272** to operation **2276**. Operation **2276** terminates the operations of this flowchart.

In certain embodiments, operation **2272** may be performed in a manner similar to the following:

Figure **11A** depicts a detail flowchart of operation **2272** of Figure **10C** further performing processing the received financial message to create a financial transaction response when finding the received financial transaction message type of the received financial message in accordance with certain  
5 embodiments.

Arrow **2290** directs the flow of execution from starting operation **2272** to operation **2292**. Operation **2292** determines when finding the received financial transaction message type of the received financial message. Arrow **2294** directs execution from operation **2292** to operation **2296** when the  
10 determination is 'Yes'. Arrow **2308** directs execution to **2300** when the determination is 'No'.

Operation **2296** performs processing the received financial message to create a financial transaction response. Arrow **2298** directs execution from operation **2296** to operation **2300**. Operation **2300** terminates the operations of this  
15 flowchart.

Figure **11B** depicts a detail flowchart of operation **2004** of Figure **5** performing processing the received user input state to create a merchant access request containing a merchant access identifier in accordance with certain embodiments.

20 Arrow **2310** directs the flow of execution from starting operation **2004** to operation **2312**. Operation **2312** performs processing the received user input state to create a merchant access request containing a merchant access identifier. Arrow **2314** directs execution from operation **2312** to operation **2316**. Operation **2316** terminates the operations of this flowchart.

25 Figure **11C** depicts a detail flowchart of operation **2000** of Figure **5** performing opening a merchant access mechanism based upon the merchant access request containing the merchant access identifier in accordance with certain embodiments.

Arrow **2330** directs the flow of execution from starting operation **2000** to operation **2332**. Operation **2332** performs opening a merchant access mechanism based upon the merchant access request containing the merchant access identifier. Arrow **2334** directs execution from operation **2332** to operation **2336**. Operation **2336** terminates the operations of this flowchart.

Figure **12A** depicts a detail flowchart of operation **2000** of Figure 5 performing receiving a merchant offer message from the merchant access mechanism in accordance with certain embodiments.

Arrow **2350** directs the flow of execution from starting operation **2000** to operation **2352**. Operation **2352** performs receiving a merchant offer message from the merchant access mechanism. Arrow **2354** directs execution from operation **2352** to operation **2356**. Operation **2356** terminates the operations of this flowchart.

Figure **12B** depicts a detail flowchart of operation **2012** of Figure 5 performing inserting the merchant offer message into the user stimulus output stream in accordance with certain embodiments.

Arrow **2370** directs the flow of execution from starting operation **2012** to operation **2372**. Operation **2372** performs inserting the merchant offer message into the user stimulus output stream. Arrow **2374** directs execution from operation **2372** to operation **2376**. Operation **2376** terminates the operations of this flowchart.

Figure **13** depicts a detail flowchart of operation **2004** of Figure 5 further performing creating a user acceptance state and an acceptance financial access request message in accordance with certain embodiments.

Arrow **2390** directs the flow of execution from starting operation **2004** to operation **2392**. Operation **2392** performs processing the received user input state to create a user acceptance state of the merchant offer message. Arrow **2394** directs execution from operation **2392** to operation **2396**. Operation **2396** performs processing the user acceptance state of the merchant offer

message to create an acceptance financial access request message as the financial access request message. Arrow 2398 directs execution from operation 2396 to operation 2400. Operation 2400 terminates the operations of this flowchart.

- 5 Figure 14A depicts a detail flowchart of operation 2352 of Figure 12A performing determining a confirmation financial response message type from the received financial message in accordance with certain embodiments.

Arrow 2410 directs the flow of execution from starting operation 2352 to operation 2412. Operation 2412 performs determining a confirmation  
10 financial response message type from the received financial message. Arrow 2414 directs execution from operation 2412 to operation 2416. Operation 2416 terminates the operations of this flowchart.

Figure 14B depicts a detail flowchart of operation 2000 of Figure 5 further performing generating and sending a user acceptance message based upon  
15 receipt of a financial access confirmation message in accordance with certain embodiments.

Arrow 2430 directs the flow of execution from starting operation 2000 to operation 2432. Operation 2432 performs generating a user acceptance message to the merchant access mechanism based upon the user  
20 acceptance state of the merchant offer message and based upon the confirmation financial response message type from the received financial message. Arrow 2434 directs execution from operation 2432 to operation 2436. Operation 2436 performs sending the user acceptance message to the merchant access mechanism. Arrow 2438 directs execution from operation  
25 2436 to operation 2440. Operation 2440 terminates the operations of this flowchart.

Figure 15A depicts a detail flowchart of operation 2000 of Figure 5 further performing receiving an acknowledgement message of the user acceptance

message and creating a financial acknowledgement message in accordance with certain embodiments.

Arrow **2450** directs the flow of execution from starting operation **2000** to operation **2452**. Operation **2452** performs receiving an acknowledgement message of the user acceptance message from the merchant access  
5 mechanism to create a received acknowledgement message of the user acceptance message. Arrow **2454** directs execution from operation **2452** to operation **2456**. Operation **2456** performs creating a financial acknowledgement message based upon the received acknowledgement  
10 message of the user acceptance message as the outgoing financial message. Arrow **2458** directs execution from operation **2456** to operation **2460**. Operation **2460** terminates the operations of this flowchart.

Certain embodiments involve the financial access vending machine further containing a dispenser subsystem.

15 Figure **15B** depicts a detail flowchart of operation **2000** of Figure 5 further performing creating a dispenser command and operating the dispenser subsystem based upon the dispenser command in accordance with certain embodiments.

Arrow **2470** directs the flow of execution from starting operation **2000** to  
20 operation **2472**. Operation **2472** performs creating a dispenser command based upon the received acknowledgement message of the user acceptance message. Arrow **2474** directs execution from operation **2472** to operation **2476**. Operation **2476** performs operating the dispenser subsystem based upon the dispenser command. Arrow **2478** directs execution from operation  
25 **2476** to operation **2480**. Operation **2480** terminates the operations of this flowchart.

Figure **16** depicts a simplified block diagram of computer system **1000** further containing a dispenser subsystem interface **1500** communicatively coupled  
**1108** to computer **1100** in accordance with certain further embodiments.

As discussed in Figure 4, computer system 1000 comprises a computer 1100 accessibly coupled 1102 to computer memory 1200. As used herein a computer system comprises at least one computer accessibly coupled to a computer memory. In certain embodiments, computer system 1000 comprises  
5 at least two computers, each with separate accessibly coupled computer memories. In certain embodiments, computer system 1000 comprises at least two computers, each sharing an accessibly coupled computer memory.

As discussed in Figure 4, computer system 1000 further comprises a user identifying interface subsystem 1300 communicatively coupled 1106 with  
10 computer 1100. User identifying subsystem 1300 includes at least one mechanism presenting a user stimulus output stream to a user and at least one mechanism by which computer system 1000 may be stimulated by a user to generate a user stimulus input stream. Embodiments of this subsystem will be discussed in greater detail later. User identifying interface subsystem 1300  
15 can gather information sufficient to adequately identify the user for purposes of transacting financial and mercantile exchanges and agreements. In certain further embodiments, user identifying interface subsystem 1300 further provides the user with mercantile offers, selection capability for financial and mercantile transactions and presentation of graphical data including at least  
20 one of the collection of presentation of maps and motion video.

As discussed in Figure 4, computer system 1000 further comprises locale identification 1400 communicatively coupled 1104 with computer 1100. In certain embodiments, locale identification 1400 contains an encapsulated system component coupled by an internal communication transport layer  
25 1104 to computer 1100. Such an internal communication transport layer 1104 may be wireline in certain further embodiments. In certain further embodiments, the wireline transport layer 1104 includes an optical fiber, coaxial cable, twisted pair, ribbon cable, or buss strips on a printed circuit board. In certain further embodiments, locale identification 1400  
30 encapsulated system component further contains nonvolatile memory. In certain further embodiments, local identification 1400 encapsulated system

component contains writable nonvolatile memory. In certain further embodiments, at least a part of the nonvolatile memory of locale identification **1400** encapsulated system component is organized and accessed as a file management system. In certain other further embodiments, locale  
5 identification **1400** encapsulated system component contains write-once nonvolatile memory.

As discussed in Figure 4, in certain embodiments, locale identification **1400** resides in part of computer memory **1200**. In certain further embodiments, local identification **1400** resides in a portion of at least one nonvolatile  
10 memory component of computer memory **1200**. In certain further embodiments, locale identification **1400** is organized and accessed **1104** as a file management system.

As discussed in Figure 4, in certain embodiments, communicative coupling **1104** between local identification **1400** and computer **1100** employs coding  
15 technology. Coding technology as used herein will refer to error detection codes, error detection and correction codes, encryption codes and combinations of these coding technologies. In certain further embodiments, communicative coupling **1104** employs distinct coding technologies depending upon whether the computer **1100** is performing reading access or  
20 writing access of locale identification **1400**.

Not previously shown or discussed in Figure 4, computer system **1000** further comprises dispenser subsystem interface **1500** communicatively coupled with an internal communication transport layer **1108** with computer **1100**. Such an internal communication transport layer **1108** may be wireline in certain further  
25 embodiments. In certain further embodiments, the wireline transport layer **1108** includes an optical fiber, coaxial cable, twisted pair, ribbon cable, or buss strips on a printed circuit board.

Not previously shown or discussed in Figure 4, in certain embodiments, communicative coupling **1108** between dispenser subsystem interface **1500**  
30 and computer **1100** employs coding technology. In certain further



embodiments, communicative coupling **1108** employs distinct coding technologies depending upon whether the computer **1100** is performing input or output access of dispenser subsystem interface **1500**. Coding technology as used herein will refer to at least error detection codes, error detection and  
5 correction codes, encryption codes and combinations of these coding technologies.

Figure **17** depicts a simplified system block diagram of dispenser subsystem interface **1500** in accordance with certain embodiments.

In certain embodiments, dispenser subsystem interface **1500** comprises a  
10 certificate dispenser controlled by certificate dispenser interface **1510** which is further coupled **1512** to dispenser subsystem interface communicative coupling **1108**. In certain further embodiments, dispenser subsystem interface **1500** further comprises a second certificate dispenser controlled by certificate dispenser 2 interface **1520** which is further coupled **1522** to  
15 dispenser subsystem interface communicative coupling **1108**.

In certain further embodiments, the certificate dispenser controlled by certificate dispenser interface **1510** further includes a certificate printer controlled by certificate dispenser interface **1510**. In certain further embodiments, the certificate printer is fed paper or card stock. In certain  
20 further embodiments, the certificate printer is fed paper or card stock, which has been previously treated with identifying markings. In certain further embodiments, these previously treated identifying markings include trademarks, digital, image or embossed watermarks on one or both sides of the paper or card stock. In certain other further embodiments, the certificate  
25 printer is multiple-sheet printer.

Certificate dispensers may be used to generate information regarding specific financial access mechanism transactions, logs of such transactions. Certificate dispensers may also generate receipts of mercantile contracts including reservations for accommodations, transportation, restaurants, as  
30 well as tickets to entertainment, sporting events, recreational activities or

other cultural or religious events. Such tickets for recreational activities include but are not limited to ski lift tickets. Certificate dispensers may also generate maps and travel directions.

In certain embodiments, dispenser subsystem interface **1500** comprises a money dispenser controlled by money dispenser interface **1530** which is further coupled **1532** to dispenser subsystem interface communicative coupling **1108**. In certain further embodiments, dispenser subsystem interface **1500** further comprises a second money dispenser controlled by money dispenser 2 interface **1540** which is further coupled **1542** to dispenser subsystem interface communicative coupling **1108**. Note that in certain embodiments, multiple money dispensers may be provided to dispense moneys from different monetary systems.

Certain embodiments include dispenser subsystem interface **1500** comprising both a money dispenser controlled by money dispenser interface **1530** and a certificate dispenser controlled by certificate dispenser interface **1510**. Certain further embodiments comprise more than two certificate dispensers. Certain other further embodiments comprise more than two money dispensers.

Certain embodiments include dispenser subsystem interface **1500** comprising other dispenser interface **1550** which is further coupled **1532** to dispenser subsystem interface communicative coupling **1108**. In certain embodiments, other dispenser interface **1550** controls other dispensers, including but not limited to bottle dispensers. In certain embodiments, other dispenser interface **1550** controls other dispensers, including but not limited to canister dispensers. In certain embodiments, other dispenser interface **1550** controls other dispensers, including but not limited to package dispensers.

Figure **18A** depicts a detail flowchart of operation **2000** of Figure **5** performing operating the dispenser system based upon receiving a merchant dispenser command message in accordance with certain embodiments.

Arrow **2490** directs the flow of execution from starting operation **2000** to operation **2492**. Operation **2492** performs operating the dispenser system based upon receiving a merchant dispenser command message. Arrow **2494** directs execution from operation **2492** to operation **2496**. Operation **2496**  
5 terminates the operations of this flowchart.

Figure **18B** depicts a detail flowchart of operation **2492** of Figure **18A** further performing operating the dispenser system based upon receiving the merchant dispenser command message in accordance with certain embodiments.

10 Arrow **2510** directs the flow of execution from starting operation **2000** to operation **2512**. Operation **2512** performs receiving the merchant dispenser command message from the merchant access mechanism to create a received merchant dispenser command message. Arrow **2514** directs execution from operation **2512** to operation **2516**. Operation **2516** performs  
15 creating a merchant dispenser command based upon the received merchant dispenser command message. Arrow **2518** directs execution from operation **2516** to operation **2520**. Operation **2520** performs operating the dispenser subsystem based upon the merchant dispenser command. Arrow **2522** directs execution from operation **2520** to operation **2524**. Operation **2524**  
20 terminates the operations of this flowchart.

Figure **19A** depicts a detail flowchart of operation **2212** of Figure **9** performing determining an approval response message type of a dispenser command permission message from the received financial message in accordance with certain embodiments.

25 Arrow **2530** directs the flow of execution from starting operation **2212** to operation **2532**. Operation **2532** performs determining an approval response message type of a dispenser command permission message from the received financial message. Arrow **2534** directs execution from operation **2532** to operation **2536**. Operation **2536** terminates the operations of this  
30 flowchart.

Figure 19B depicts a detail flowchart of operation 2516 of Figure 18B further performing creating a merchant dispenser command based upon the received merchant dispenser command message in accordance with certain embodiments.

5 Arrow 2550 directs the flow of execution from starting operation 2516 to operation 2552. Operation 2552 performs creating the dispenser command permission message as the outgoing financial message. Arrow 2554 directs execution from operation 2552 to operation 2556. Operation 2556 performs creating the merchant dispenser command based upon the received  
10 merchant dispenser command message and based upon the approval response message type of the dispenser command permission message from the received financial message. Arrow 2558 directs execution from operation 2556 to operation 2560. Operation 2560 terminates the operations of this flowchart.

15 Figure 20A depicts a detail flowchart of operation 2212 of Figure 9 performing determining a local user access profile maintenance message type from the received financial message in accordance with certain embodiments.

Arrow 2570 directs the flow of execution from starting operation 2212 to operation 2572. Operation 2572 performs determining a local user access  
20 profile maintenance message type from the received financial message. Arrow 2574 directs execution from operation 2572 to operation 2576. Operation 2576 terminates the operations of this flowchart.

Figure 20B depicts a detail flowchart of operation 2192 of Figure 8B performing maintaining the local user access profile collection based upon the  
25 local user access profile maintenance message type of the received financial message in accordance with certain embodiments.

Arrow 2590 directs the flow of execution from starting operation 2192 to operation 2592. Operation 2592 performs maintaining the local user access profile collection based upon the local user access profile maintenance

message type of the received financial message. Arrow 2594 directs execution from operation 2592 to operation 2596. Operation 2596 terminates the operations of this flowchart.

5 Figure 21A depicts a detail flowchart of operation 2000 of Figure 5 further performing creating a dispenser command and operating the dispenser subsystem based upon the dispenser command in accordance with certain embodiments.

Arrow 2610 directs the flow of execution from starting operation 2000 to operation 2612. Operation 2612 performs creating a dispenser command.  
10 Arrow 2614 directs execution from operation 2612 to operation 2616. Operation 2616 performs operating the dispenser subsystem based upon the dispenser command. Arrow 2618 directs execution from operation 2616 to operation 2620. Operation 2620 terminates the operations of this flowchart.

Figure 21B depicts a detail flowchart of operation 2212 of Figure 9 performing  
15 determining a dispenser command option message type from the received financial message in accordance with certain embodiments.

Arrow 2630 directs the flow of execution from starting operation 2212 to operation 2632. Operation 2632 performs determining a dispenser command option message type from the received financial message. Arrow 2634  
20 directs execution from operation 2632 to operation 2636. Operation 2636 terminates the operations of this flowchart.

Figure 21C depicts a detail flowchart of operation 2012 of Figure 5 performing generating the user stimulus output stream from the received user input state, the locale identification and based upon the dispenser command option  
25 message type of the received financial message in accordance with certain embodiments.

Arrow 2650 directs the flow of execution from starting operation 2012 to operation 2652. Operation 2652 performs generating the user stimulus output stream from the received user input state and from the locale identification

and based upon the dispenser command option message type of the received financial message. Arrow **2654** directs execution from operation **2652** to operation **2656**. Operation **2656** terminates the operations of this flowchart.

Figure **22A** depicts a detail flowchart of operation **2556** of Figure **19B** further  
5 creating the merchant dispenser command based upon the received merchant dispenser command message, the approval response message type-dispenser command permission message from the received financial message in accordance with certain embodiments.

Arrow **2670** directs the flow of execution from starting operation **2556** to  
10 operation **2672**. Operation **2672** determines the approval response message type of the dispenser command permission message from the received financial message. Arrow **2674** directs execution from operation **2672** to operation **2676** when the determination is 'Yes'. Arrow **2688** directs execution to **2680** when the determination is 'No'.

15 Operation **2676** performs creating the merchant dispenser command based upon the received merchant dispenser command message and based upon the received financial message. Arrow **2678** directs execution from operation **2676** to operation **2680**. Operation **2680** terminates the operations of this flowchart.

20 Figure **22B** depicts a detail flowchart of operation **2592** of Figure **20B** further performing maintaining the local user access profile collection based upon the local user access profile maintenance message type of the received financial message in accordance with certain embodiments.

Arrow **2690** directs the flow of execution from starting operation **2592** to  
25 operation **2692**. Operation **2692** determines the local user access profile maintenance message type of the received financial message. Arrow **2694** directs execution from operation **2692** to operation **2696** when the determination is 'Yes'. Arrow **2708** directs execution to **2700** when the determination is 'No'.

Operation **2696** performs maintaining the local user access profile collection based upon the received financial message. Arrow **2698** directs execution from operation **2696** to operation **2700**. Operation **2700** terminates the operations of this flowchart.

- 5 Figure **23A** depicts a detail flowchart of operation **2652** of Figure **21C** further performing generating the user stimulus output stream from the received user input state, the locale identification and based upon the dispenser command option message type of the received financial message, in accordance with certain embodiments.
- 10 Arrow **2710** directs the flow of execution from starting operation **2652** to operation **2712**. Operation **2712** determines the dispenser command option message type of the received financial message. Arrow **2714** directs execution from operation **2712** to operation **2716** when the determination is 'Yes'. Arrow **2728** directs execution to **2720** when the determination is 'No'.
- 15 Operation **2716** performs generating the user stimulus output stream from the received user input state, from the locale identification and based upon the received financial message. Arrow **2718** directs execution from operation **2716** to operation **2720**. Operation **2720** terminates the operations of this flowchart.
- 20 Figure **23B** depicts a detail flowchart of operation **2004** of Figure **5** performing processing the received user input state to create a user dispenser option command in accordance with certain embodiments.
- Arrow **2730** directs the flow of execution from starting operation **2004** to operation **2732**. Operation **2732** performs processing the received user input
- 25 state to create a user dispenser option command. Arrow **2734** directs execution from operation **2732** to operation **2736**. Operation **2736** terminates the operations of this flowchart.

Figure **23C** depicts a detail flowchart of operation **2612** of Figure **21A** performing creating the dispenser command based upon the user dispenser option command in accordance with certain embodiments.

Arrow **2750** directs the flow of execution from starting operation **2612** to operation **2752**. Operation **2752** performs creating the dispenser command based upon the user dispenser option command. Arrow **2754** directs execution from operation **2752** to operation **2756**. Operation **2756** terminates the operations of this flowchart.

Figure **24A** depicts a detail flowchart of operation **2212** of Figure **9** performing determining a dispenser command message type from the received financial message in accordance with certain embodiments.

Arrow **2770** directs the flow of execution from starting operation **2212** to operation **2772**. Operation **2772** performs determining a dispenser command message type from the received financial message. Arrow **2774** directs execution from operation **2772** to operation **2776**. Operation **2776** terminates the operations of this flowchart.

Figure **24B** depicts a detail flowchart of operation **2612** of Figure **21A** performing creating the dispenser command based upon the dispenser command message type from the received financial message in accordance with certain embodiments.

Arrow **2790** directs the flow of execution from starting operation **2612** to operation **2792**. Operation **2792** performs creating the dispenser command based upon the dispenser command message type from the received financial message. Arrow **2794** directs execution from operation **2792** to operation **2796**. Operation **2796** terminates the operations of this flowchart.

Figure **24C** depicts a detail flowchart of operation **2192** of Figure **8B** performing maintaining the locale identification based upon the activated financial access mechanism in accordance with certain embodiments.



Arrow **2810** directs the flow of execution from starting operation **2192** to operation **2812**. Operation **2812** performs maintaining the locale identification based upon the activated financial access mechanism. Arrow **2814** directs execution from operation **2812** to operation **2816**. Operation **2816** terminates the operations of this flowchart.

Figure **25A** depicts a detail flowchart of operation **2792** of Figure **24B** further performing creating the dispenser command based upon the dispenser command message type from the received financial message in accordance with certain embodiments.

- 10 Arrow **2830** directs the flow of execution from starting operation **2792** to operation **2832**. Operation **2832** determines the dispenser command message type from the received financial message. Arrow **2834** directs execution from operation **2832** to operation **2836** when the determination is 'Yes'. Arrow **2848** directs execution to **2840** when the determination is 'No'.
- 15 Operation **2836** performs creating the dispenser command based upon the received financial message. Arrow **2838** directs execution from operation **2836** to operation **2840**. Operation **2840** terminates the operations of this flowchart.

- Figure **25B** depicts a detail flowchart of operation **2192** of Figure **8 B** performing maintaining the locale identification based upon the activated financial access mechanism and based upon the user identification, in accordance with certain embodiments.

- Arrow **2850** directs the flow of execution from starting operation **2192** to operation **2852**. Operation **2852** performs maintaining the locale identification based upon the activated financial access mechanism and based upon the user identification. Arrow **2854** directs execution from operation **2852** to operation **2856**. Operation **2856** terminates the operations of this flowchart.

Figure 25C depicts a detail flowchart of operation 2192 of Figure 8B performing maintaining the locale identification based upon the user identification, in accordance with certain embodiments.

Arrow 2870 directs the flow of execution from starting operation 2192 to operation 2872. Operation 2872 performs maintaining the locale identification based upon the user identification. Arrow 2874 directs execution from operation 2872 to operation 2876. Operation 2876 terminates the operations of this flowchart.

Figure 26A depicts a detail flowchart of operation 2192 of Figure 8B performing creating a first local access profile node in the local user access profile collection included in the locale identification in accordance with certain embodiments.

Arrow 2890 directs the flow of execution from starting operation 2192 to operation 2892. Operation 2892 performs creating a first local access profile node in the local user access profile collection included in the locale identification. Arrow 2894 directs execution from operation 2892 to operation 2896. Operation 2896 terminates the operations of this flowchart.

Figure 26B depicts a detail flowchart of operation 2192 of Figure 8B performing deleting a first local access profile node from the local user access profile collection included in the locale identification in accordance with certain embodiments.

Arrow 2910 directs the flow of execution from starting operation 2192 to operation 2912. Operation 2912 performs deleting a first local access profile node from the local user access profile collection included in the locale identification. Arrow 2914 directs execution from operation 2912 to operation 2916. Operation 2916 terminates the operations of this flowchart.

Figure 26C depicts a detail flowchart of operation 2192 of Figure 8B performing modifying a first local access profile node in the local user access

profile collection included in the locale identification in accordance with certain embodiments.

Arrow **2930** directs the flow of execution from starting operation **2192** to operation **2932**. Operation **2932** performs modifying a first local access profile node in the local user access profile collection included in the locale identification. Arrow **2934** directs execution from operation **2932** to operation **2936**. Operation **2936** terminates the operations of this flowchart.

Figure **27** depicts locale identification **1400** including a local user access profile collection **1410** in accordance with certain embodiments.

10 In certain embodiments, locale identification **1400** includes **1402** local user access profile collection **1410** which in turn contains **1412** local access profile node **1420**.

In certain further embodiments, local access profile node **1420** contains **1432** a textual presentation content **1430**.

15 In certain other further embodiments, local access profile node **1420** contains **1442** a graphical presentation content **1440**.

In certain further embodiments, local access profile node **1420** contains **1432** graphical presentation content **1440**, which in turn contains **1452** motion video content presentation **1450**.

20 In certain further embodiments, local access profile node **1420** contains **1462** a synchronized audio sequence **1460**. In certain embodiments, the synchronization of the synchronized audio sequence **1460** is based upon local access profile node **1420**. In certain further embodiments, the synchronization of the synchronized audio sequence **1460** is based upon graphical presentation content **1440** as a whole. In certain further embodiments, the  
25 synchronization of the synchronized audio sequence **1460** is based upon motion video content presentation **1450**. In certain other embodiments, the

synchronization of the synchronized audio sequence **1460** is based upon textual presentation content **1430**.

In certain further embodiments, local access profile node **1420** contains more than one synchronized audio sequence.

- 5 In certain further embodiments, local access profile node **1420** contains **1432** graphical presentation content **1440**, containing more than one motion video content presentation.

In certain embodiments local access profile node **1420** contains more than one graphical presentation content.

- 10 In certain other further embodiments, local user access profile collection **1410** contains **1414** a second local access profile node **1422**. Additionally, local access profile node **1420** contains **1472** a link **1470** referencing **1474** the second local access profile node **1422**. In certain further embodiments, local user access profile collection **1410** contains a third local access profile node,  
15 and local access profile node **1420** contains a second link, referencing the third local access profile node. In certain further embodiments, a local access profile node may contain more than two links referencing other local access profile nodes, which may or may not all be distinct local access profile nodes.

- Figure **28A** depicts a detail flowchart of operation **2012** of Figure 5 further  
20 performing generating the user stimulus output stream from the received user input state, the locale identification, with a first local access profile node containing a textual presentation content, in accordance with certain embodiments.

- Arrow **2950** directs the flow of execution from starting operation **2012** to  
25 operation **2952**. Operation **2952** performs selecting the first local access profile node in the local user access profile collection as a presentation node. Arrow **2954** directs execution from operation **2952** to operation **2956**. Operation **2956** performs generating the user stimulus output stream from the received user input state and from the textual presentation content of the

presentation node. Arrow **2958** directs execution from operation **2956** to operation **2960**. Operation **2960** terminates the operations of this flowchart.

Figure **28B** depicts a detail flowchart of operation **2012** of Figure **5** further performing generating the user stimulus output stream from the received user input state, the locale identification, with a first local access profile node  
5 containing a graphical presentation content, in accordance with certain embodiments.

Arrow **2970** directs the flow of execution from starting operation **2012** to operation **2972**. Operation **2972** performs selecting the first local access  
10 profile node in the local user access profile collection as a presentation node. Arrow **2974** directs execution from operation **2972** to operation **2976**. Operation **2976** performs generating the user stimulus output stream from the received user input state and from the graphical presentation content of the presentation node. Arrow **2978** directs execution from operation **2976** to  
15 operation **2980**. Operation **2980** terminates the operations of this flowchart.

Figure **29A** depicts a detail flowchart of operation **2976** of Figure **28B** performing generating the user stimulus output stream from the received user input state and from the motion video presentation content of the presentation node in accordance with certain embodiments.

20 Arrow **2990** directs the flow of execution from starting operation **2976** to operation **2992**. Operation **2992** performs generating the user stimulus output stream from the received user input state and from the motion video presentation content of the presentation node. Arrow **2994** directs execution from operation **2992** to operation **2996**. Operation **2996** terminates the  
25 operations of this flowchart.

Figure **29B** depicts a detail flowchart of operation **2012** of Figure **5** further performing generating the user stimulus output stream from the received user input state and from the locale identification, with a first local access profile

node containing a synchronized audio presentation content, in accordance with certain embodiments.

Arrow **3000** directs the flow of execution from starting operation **2012** to operation **3002**. Operation **3002** performs selecting the first local access profile node in the local user access profile collection as a presentation node.  
5 Arrow **3004** directs execution from operation **3002** to operation **3006**. Operation **3006** performs generating the user stimulus output stream from the received user input state and from the synchronized audio sequence of the presentation node. Arrow **3008** directs execution from operation **3006** to  
10 operation **3010**. Operation **3010** terminates the operations of this flowchart.

Figure **30A** depicts a detail flowchart of operation **2004** of Figure 5 performing processing the received user input state based upon the first local access profile node containing the link to the second local access profile node to create a user node selection in accordance with certain embodiments.

15 Arrow **3030** directs the flow of execution from starting operation **2004** to operation **3032**. Operation **3032** performs processing the received user input state based upon the first local access profile node containing the link to the second local access profile node to create a user node selection. Arrow **3034** directs execution from operation **3032** to operation **3036**. Operation **3036**  
20 terminates the operations of this flowchart.

Figure **30B** depicts a detail flowchart of operation **2012** of Figure 5 performing generating the user stimulus output stream from the received user input state, the locale identification based upon the user node selection in accordance with certain embodiments.

25 Arrow **3050** directs the flow of execution from starting operation **2012** to operation **3052**. Operation **3052** performs generating the user stimulus output stream from the received user input state and from the locale identification and based upon the user node selection. Arrow **3054** directs execution from

operation **3052** to operation **3056**. Operation **3056** terminates the operations of this flowchart.

Figure **31A** depicts a presentation node collection **1600** comprising **1602** presentation reference **1610** associated **1612** with local access profile node **1420** of **1412** local user access profile collection **1410** included **1402** in locale identification **1400**, in accordance with certain embodiments.

Note that in certain embodiments, presentation node collection **1600** may comprise more than one presentation reference. In certain embodiments, the default presentation node collection may contain a default presentation reference associated with an initial local access profile node. The initial local access profile node may contain a welcome textual message, graphical presentation content, motion video sequence and/or a synchronized audio sequence which may repetitively be presented until user triggered stimulus is received in the user stimulus input stream.

In certain embodiments, presentation node collection **1600** is communicatively coupled **1610** to computer **1100** of computer system **1000**. Such coupling **1610** may be through residing in computer memory **1200**, in certain further embodiments. Coupling **1610** can be effected as a communications link to a physically distinct unit, such as a PCMCIA card, or embedded processor subsystem, in certain embodiments. In certain further embodiments, coupling **1610** includes a physical transport layer. In certain further embodiments, coupling **1610** physical transport layer includes, but is not limited to, a wireline physical transport layer. Such wireline physical transport layers include but are not limited to electromagnetic and optical signaling physical transport mechanisms. In certain other further embodiments, coupling **1610** physical transport layer includes, but is not limited to, a wireless physical transport layer. Such wireless physical transport layers include but are not limited to electromagnetic field, microwave, infrared and optical wireless physical transport layers.

In certain further embodiments, presentation node collection **1600** acts as a list of presentation references. In certain other further embodiments, presentation node collection **1600** acts as a table of presentation references. In certain other further embodiments, presentation node collection **1600** acts as a file of presentation references accessed as through a file management system. In certain other further embodiments, presentation node collection **1600** acts as a collection of presentation program code segments. In certain further embodiments, presentation node collection **1600** acts as a collection of presentation program code segments in JAVA. In certain further embodiments, presentation node collection **1600** acts as a collection of presentation program code segments in HTML (Hyper Text Markup Language). In certain further embodiments, presentation node collection **1600** acts as a collection of presentation program code segments in VRML (Virtual Reality markup Language). In certain further embodiments, presentation node collection **1600** acts as a collection of presentation program code segments in ActiveX.

Figure **31B** depicts user navigation command collection **1700** comprising a select node command **1710**, a delete node command **1720** and a reset node list command **1730**, in accordance with certain embodiments.

In certain embodiments, the user stimulates the financial access vending machine whereby the user identifying interface includes in the user stimulus input stream designations referring to one or more of the members of the user navigation command collection **1700**.

Figure **32A** depicts a detail flowchart of operation **2000** of Figure 5 further performing maintaining a presentation node collection comprising at least one presentation reference to an associated local access profile node of the local user access profile collection in accordance with certain embodiments.

Arrow **3070** directs the flow of execution from starting operation **2000** to operation **3072**. Operation **3072** performs maintaining a presentation node collection comprising at least one presentation reference to an associated



local access profile node of the local user access profile collection. Arrow 3074 directs execution from operation 3072 to operation 3076. Operation 3076 terminates the operations of this flowchart.

5 Figure 32B depicts a detail flowchart of operation 2012 of Figure 5 performing generating the user stimulus output stream from the received user input state, the locale identification based upon the user navigation input, the user identification and the presentation node collection in accordance with certain embodiments.

10 Arrow 3090 directs the flow of execution from starting operation 2012 to operation 3092. Operation 3092 performs generating the user stimulus output stream from the received user input state and from the locale identification and based upon the user navigation input and based upon the user identification and based upon the presentation node collection. Arrow 3094 directs execution from operation 3092 to operation 3096. Operation 3096  
15 terminates the operations of this flowchart.

Figure 33A depicts a detail flowchart of operation 3072 of Figure 32A further performing maintaining the presentation node collection comprising presentation references to the associated local access profile node of the local user access profile collection in accordance with certain embodiments.

20 Arrow 3110 directs the flow of execution from starting operation 3072 to operation 3112. Operation 3112 performs selecting a first of the local access profile nodes of the local user access profile collection to create a first of the presentation references of the presentation node collection as the associated local access profile node when the user navigation input includes the select  
25 node command. Arrow 3114 directs execution from operation 3112 to operation 3116. Operation 3116 terminates the operations of this flowchart.

Arrow 3120 directs the flow of execution from starting operation 3072 to operation 3122. Operation 3122 performs removing the first presentation reference of the presentation node collection as the associated local access

profile node when the user navigation input includes the remove node command. Arrow **3124** directs execution from operation **3122** to operation **3116**. Operation **3116** terminates the operations of this flowchart.

Arrow **3130** directs the flow of execution from starting operation **3072** to operation **3132**. Operation **3132** performs resetting at least the first presentation reference of the presentation node collection as the associated local access profile node to a reference to a predetermined first of the local access profile nodes of the local user access profile collection to create the first presentation reference of the presentation node collection as the associated local access profile node when the user navigation input includes the reset node list command. Arrow **3134** directs execution from operation **3132** to operation **3116**. Operation **3116** terminates the operations of this flowchart.

In certain embodiments, at least one of these operations is included in maintaining the presentation node collection. In certain further embodiments, all of these operations are included in maintaining the presentation node collection.

Figure **33B** depicts a detail flowchart of operation **3112** of Figure **33A** further performing selecting a first local access profile node to create a first presentation reference of the presentation node collection when the user navigation input includes the select node command in accordance with certain embodiments.

Arrow **3150** directs the flow of execution from starting operation **3112** to operation **3152**. Operation **3152** determines when the user navigation input includes the select node command. Arrow **3154** directs execution from operation **3152** to operation **3156** when the determination is 'Yes'. Arrow **3168** directs execution to **3160** when the determination is 'No'.

Operation **3156** performs selecting a first of the local access profile nodes of the local user access profile collection to create a first of the presentation

references of the presentation node collection as the associated local access profile node. Arrow **3158** directs execution from operation **3156** to operation **3160**. Operation **3160** terminates the operations of this flowchart.

Figure **34A** depicts a detail flowchart of operation **3122** of Figure **33B** further performing removing the first presentation reference of the presentation node collection as the associated local access profile node when the user navigation input includes the remove node command in accordance with certain embodiments.

Arrow **3170** directs the flow of execution from starting operation **3122** to operation **3172**. Operation **3172** determines when the user navigation input includes the remove node command. Arrow **3174** directs execution from operation **3172** to operation **3176** when the determination is 'Yes'. Arrow **3188** directs execution to **3180** when the determination is 'No'.

Operation **3176** performs removing the first presentation reference of the presentation node collection as the associated local access profile node. Arrow **3178** directs execution from operation **3176** to operation **3180**. Operation **3180** terminates the operations of this flowchart.

Figure **34B** depicts a detail flowchart of operation **3132** of Figure **33A** further performing resetting at least the first presentation reference of the presentation node collection when the user navigation input includes the reset node list command in accordance with certain embodiments.

Arrow **3190** directs the flow of execution from starting operation **3132** to operation **3192**. Operation **3192** determines when the user navigation input includes the reset node list command. Arrow **3194** directs execution from operation **3192** to operation **3196** when the determination is 'Yes'. Arrow **3208** directs execution to **3200** when the determination is 'No'.

Operation **3196** performs resetting at least the first presentation reference of the presentation node collection as the associated local access profile node to a reference to a predetermined first of the local access profile nodes of the

local user access profile collection to create the first presentation reference of the presentation node collection as the associated local access profile node. Arrow **3198** directs execution from operation **3196** to operation **3200**. Operation **3200** terminates the operations of this flowchart.

- 5 Figure **35** depicts a simplified system block diagram of computer **1100** communicatively coupled **1106** with user identifying interface subsystem **1300**, as shown in Figure **4** comprising various subsystems in accordance with certain embodiments.

10 In certain further embodiments, user identifying interface subsystem **1300** comprises user presentation subsystem **1310** communicatively coupled **1130** to computer **1100** via communicative coupling **1106** between user identifying interface subsystem **1300** and computer **1100**. User identifying interface subsystem **1300** further comprises user response subsystem **1320** communicatively coupled **1132** to computer **1100** via communicative coupling  
15 **1106** between user identifying interface subsystem **1300** and computer **1100**.

In certain further embodiments, user identifying interface subsystem **1300** comprises access card interface subsystem **1310** communicatively coupled **1134** to computer **1100** via communicative coupling **1106** between user identifying interface subsystem **1300** and computer **1100**.

- 20 Figure **36** depicts a more detailed system block diagram of user identifying interface subsystem **1300** with its communicative coupling **1106** as shown in Figure **35** further comprising coupled subsystems in accordance with certain embodiments.

As shown in Figure **35**, in certain further embodiments, user identifying  
25 interface subsystem **1300** comprises user presentation subsystem **1310** communicatively coupled **1130** to computer **1100** via communicative coupling **1106** between user identifying interface subsystem **1300** and computer **1100**. User identifying interface subsystem **1300** further comprises user response subsystem **1320** communicatively coupled **1132** to computer **1100** via

communicative coupling **1106** between user identifying interface subsystem **1300** and computer **1100**.

In certain further embodiments, user presentation subsystem **1310** is comprised of user video subsystem **1314** communicatively coupled **1312** to  
5 computer **1100** via coupling **1130** and via coupling **1106**. User video subsystem **1314** supports motion video screen presentations in certain further embodiments. User video subsystem **1314** supports more than two-dimensional presentations in certain further embodiments. User video subsystem **1314** supports more than two-dimensional motion video  
10 presentations in certain further embodiments.

In certain further embodiments, user presentation subsystem **1310** is comprised of user acoustic output subsystem **1318** communicatively coupled **1316** to computer **1100** via coupling **1130** and via coupling **1106**. User acoustic output subsystem **1318** supports single channel, or monophonic,  
15 acoustic presentations in certain further embodiments. User acoustic output subsystem **1318** supports multiple channel acoustic presentations in certain further embodiments.

In certain further embodiments, user response subsystem **1320** is comprised of user tactile interface subsystem **1340** communicatively coupled **1341** to  
20 computer **1100** via coupling **1356** and via coupling **1132** and via coupling **1106**. As used herein tactile refers to the physical presence of the user, which may be sensed by physical contact, or physical proximity to the financial access vending machine, or parts of the financial access vending machine.

25 In certain further embodiments, user tactile interface subsystem **1340** is comprised user touch input subsystem **1342** of communicatively coupled **1341** to computer **1100** via coupling **1351** and via coupling **1156** and via coupling **1132** and via coupling **1106**.

In certain further embodiments, user touch input subsystem **1342** is comprised of user touch keypad subsystem **1346** communicatively coupled **1344** to computer **1100** via coupling **1341** and via coupling **1351** and via coupling **1156** and via coupling **1132** and via coupling **1106**. In certain further  
5 embodiments, user touch keypad subsystem **1346** includes a traditional user touch keypad. In certain other further embodiments, user touch keypad subsystem **1346** includes a touch sensitive membrane. In certain further embodiments the touch sensitive membrane is at least partially transparent and mounted near at least a portion of the user video subsystem. The user is  
10 directed by the displayed presentation material to respond by touch to certain regions of the touch sensitive membrane. In certain further embodiments, proximity sensors or sensor arrays are employed as the user touch keypad subsystem. These proximity sensors may be further aligned with the presentation of the user video subsystem to direct the user to move within the  
15 sensor range of the proximity sensors.

In certain further embodiments, user touch input subsystem **1342** is comprised of user handprint sensor subsystem **1350** communicatively coupled **1348** to computer **1100** via coupling **1341** and via coupling **1151** and via coupling **1356** and via coupling **1132** and via coupling **1106**. As used  
20 herein, handprint sensor refers not only to sensing the entire handprint, but also the ridge pattern of a finger or thumb, or combination of fingers and thumbs.

In certain further embodiments, user tactile interface subsystem **1340** is comprised of user retinal sensor subsystem **1354** communicatively coupled  
25 **1352** to computer **1100** via coupling **1351** and via coupling **1156** and via coupling **1132** and via coupling **1106**. Note that in certain further embodiments, the user's face comes in close proximity to the retinal scanner subsystem. In certain other further embodiments, the user's face touches the retinal scanner subsystem.

In certain further embodiments, user response subsystem **1320** is comprised of user photographic sensor subsystem **1358** communicatively coupled **1360** to computer **1100** via coupling **1356** and via coupling **1132** and via coupling **1106**. In certain further embodiments, user photographic sensor subsystem **1358** captures a still frame of the user. In certain further embodiments, user photographic sensor subsystem captures a sequence of frames incorporating an aspect of motion regarding the user. In certain further embodiments, such captured motion information can be used to interpret sign language.

In certain further embodiments, user response subsystem **1320** is comprised of user acoustic sensor subsystem **1362** communicatively coupled **1364** to computer **1100** via coupling **1356** and via coupling **1132** and via coupling **1106**. In certain further embodiments, user acoustic sensor subsystem **1362** includes ambient noise acoustic sensors. In certain further embodiments, user acoustic sensor subsystem **1362** includes ambient noise acoustic suppression of the user acoustic input stream.

As shown in Figure 35, in certain further embodiments, user identifying interface subsystem **1300** comprises access card interface subsystem **1310** communicatively coupled **1134** to computer **1100** via communicative coupling **1106** between user identifying interface subsystem **1300** and computer **1100**.

In certain further embodiments, access card interface subsystem **1310** comprises access card interface **1334** communicatively coupled **1332** to computer **1100** via coupling **1331** and via coupling **1106**. In certain further embodiments, access card interface **1334** includes the capability to read a magnetic strip access card. In certain other further embodiments, access card interface **1334** includes the capability to read a smart card.

In certain further embodiments, access card interface subsystem **1310** comprises access card interface **1338** communicatively coupled **1336** to computer **1100** via coupling **1331** and via coupling **1106**. In certain further embodiments, access card interface **1338** includes the capability to read a

magnetic strip access card. In certain other further embodiments, access card interface **1338** includes the capability to read a smart card.

As used herein, the various couplings, layers of couplings and tree structure of couplings may be implemented with either wireline or wireless physical transport layers. The physical transport layers may vary from one coupling to another. Each layer of coupling may further interface to the more detailed layers of couplings through gateway mechanisms which may vary from simple transponders to sophisticated coding translation mechanisms between coupling layer transponders.

Figure **37A** depicts a detail flowchart of operation **2022** of Figure 5 performing sending the user stimulus output stream to the user presentation subsystem in accordance with certain embodiments.

Arrow **3210** directs the flow of execution from starting operation **2022** to operation **3212**. Operation **3212** performs sending the user stimulus output stream to the user presentation subsystem. Arrow **3214** directs execution from operation **3212** to operation **3216**. Operation **3216** terminates the operations of this flowchart.

Figure **37B** depicts a detail flowchart of operation **2004** of Figure 5 performing receiving a user stimulus input stream from the user response subsystem to create the received user input state in accordance with certain embodiments.

Arrow **3230** directs the flow of execution from starting operation **2004** to operation **3232**. Operation **3232** performs receiving a user stimulus input stream from the user response subsystem to create the received user input state. Arrow **3234** directs execution from operation **3232** to operation **3236**. Operation **3236** terminates the operations of this flowchart.

Figure **38A** depicts a user output stimulus stream **1700** and several output stimulus streams contained in the user stimulus output stream, as well as user stimulus input stream **1800**, received user input state **1810** and various



derived components from received user input state, in accordance with certain embodiments.

In certain embodiments, user output stimulus stream **1700** is comprised of user audio video output stream **1710**. In certain further embodiments, user  
5 audio video output stream **1710** is further comprised of user video output stream **1720** and user audio output stream **1730**. In certain further embodiments, user video output stream **1720** supports motion video. In certain further embodiments, user video output stream **1720** supports more than two-dimensional presentations. In certain further embodiments, user  
10 video output stream **1720** supports more than two-dimensional motion video. In certain other further embodiments, a synchronization scheme between at least part of the user video output stream and the user audio output stream in employed.

In certain embodiments, user output stimulus stream **1700** is comprised of  
15 user video output stream **1720** and user audio output stream **1730**. In certain further embodiments, user video output stream **1720** supports motion video. In certain further embodiments, user video output stream **1720** supports more than two-dimensional presentations. In certain further embodiments, user video output stream **1720** supports more than two-dimensional motion video.  
20 In certain other further embodiments, a synchronization scheme between at least part of the user video output stream and the user audio output stream in employed.

In certain embodiments, user output stimulus stream **1700** is comprised of user video output stream **1720**. In certain further embodiments, user video  
25 output stream **1720** supports motion video. In certain further embodiments, user video output stream **1720** supports more than two-dimensional presentations. In certain further embodiments, user video output stream **1720** supports more than two-dimensional motion video.

In certain embodiments, user stimulus input stream **1800** is further comprised of user audio input stream **1802**. In certain embodiments, user stimulus input stream **1800** is further comprised of user tactile input stream **1804**.

In certain embodiments, user stimulus input stream **1800** is processed to  
5 create received user input state **1810**.

In certain further embodiments, received user input state **1810** is processed to create user navigation input **1812**.

In certain further embodiments, received user input state **1810** is processed to create user identification **1814**.

10 In certain further embodiments, received user input state **1810** is processed to create financial transaction request message **1816**.

In certain further embodiments, received user input state **1810** is processed to create user acceptance state **1818**.

In certain further embodiments, received user input state **1810** is processed to  
15 create acceptance financial access request message **1820**. In certain further embodiments, received user input state **1810** and user acceptance state **1818** are processed to acceptance financial access request message **1820**.

In certain further embodiments, received user input state **1810** is processed to create user dispenser option command **1822**.

20 In certain further embodiments, received user input state **1810** is processed to create user node selection **1824**.

In certain further embodiments, received user input state **1810** is processed to create user tactile input state **1826**. In certain further embodiments, user tactile input state **1826** is processed to create user identification state **1828**.

25 Figure **38B** depicts a detail flowchart of operation **2022** of Figure 5 performing sending the user video output stream to the user video subsystem in accordance with certain embodiments.

Arrow **3250** directs the flow of execution from starting operation **2022** to operation **3252**. Operation **3252** performs sending the user video output stream to the user video subsystem. Arrow **3254** directs execution from operation **3252** to operation **3256**. Operation **3256** terminates the operations  
5 of this flowchart.

Figure **39A** depicts a detail flowchart of operation **2004** of Figure 5 performing receiving the user tactile input stream from the user tactile input subsystem to create a received user tactile input state in accordance with certain embodiments.

10 Arrow **3270** directs the flow of execution from starting operation **2004** to operation **3272**. Operation **3272** performs receiving the user tactile input stream from the user tactile input subsystem to create a received user tactile input state. Arrow **3274** directs execution from operation **3272** to operation **3276**. Operation **3276** terminates the operations of this flowchart.

15 Figure **39B** depicts a detail flowchart of operation **2012** of Figure 5 performing processing the received user tactile input state to create a user identification state in accordance with certain embodiments.

Arrow **3290** directs the flow of execution from starting operation **2012** to operation **3292**. Operation **3292** performs processing the received user tactile  
20 input state to create a user identification state. Arrow **3294** directs execution from operation **3292** to operation **3296**. Operation **3296** terminates the operations of this flowchart.

Figure **40** depicts a detail flowchart of operation **2132** of Figure **7B** further performing processing the received user input state to create the user  
25 identification in accordance with certain embodiments.

Arrow **3310** directs the flow of execution from starting operation **2132** to operation **3312**. Operation **3312** performs sending a financial identification confirmation request message based upon the user identification state to the activated financial access mechanism to create a sent financial identification

confirmation request message. Arrow **3314** directs execution from operation **3312** to operation **3316**. Operation **3316** performs receiving a financial message from the activated financial access mechanism a financial identification confirmation message responding to the sent financial identification confirmation request message to create a received financial identification confirmation message. Arrow **3318** directs execution from operation **3316** to operation **3320**. Operation **3320** performs processing the received financial identification confirmation message to create the user identification. Arrow **3322** directs execution from operation **3320** to operation **3324**. Operation **3324** terminates the operations of this flowchart.

Figure **41A** depicts a detail flowchart of operation **2004** of Figure **5** performing receiving a user tactile input stream from the user tactile input subsystem to create a user tactile input state, in accordance with certain embodiments, where the user identifying interface subsystem comprises a user tactile input subsystem.

Arrow **3330** directs the flow of execution from starting operation **2004** to operation **3332**. Operation **3332** performs receiving a user tactile input stream from the user tactile input subsystem to create a user tactile input state. Arrow **3334** directs execution from operation **3332** to operation **3336**. Operation **3336** terminates the operations of this flowchart.

Figure **41B** depicts a detail flowchart of operation **3332** of Figure **41A** performing receiving a user handprint sensor input state from the user handprint sensor subsystem in accordance with certain embodiments.

Arrow **3350** directs the flow of execution from starting operation **3332** to operation **3352**. Operation **3352** performs receiving a user handprint sensor input state from the user handprint sensor subsystem. Arrow **3354** directs execution from operation **3352** to operation **3356**. Operation **3356** terminates the operations of this flowchart.

Figure 41C depicts a detail flowchart of operation 3332 of Figure 41A performing receiving a user retinal sensor input state from the user retinal sensor subsystem in accordance with certain embodiments.

Arrow 3370 directs the flow of execution from starting operation 3332 to operation 3372. Operation 3372 performs receiving a user retinal sensor input state from the user retinal sensor subsystem. Arrow 3374 directs execution from operation 3372 to operation 3376. Operation 3376 terminates the operations of this flowchart.

Figure 42A depicts a detail flowchart of operation 3332 of Figure 41A performing receiving a user photographic sensor input state from the user photographic sensor subsystem in accordance with certain embodiments.

Arrow 3390 directs the flow of execution from starting operation 3332 to operation 3392. Operation 3392 performs receiving a user photographic sensor input state from the user photographic sensor subsystem. Arrow 3394 directs execution from operation 3392 to operation 3396. Operation 3396 terminates the operations of this flowchart.

Figure 42B depicts a detail flowchart of operation 3332 of Figure 41A performing receiving a user acoustic sensor input stream from the user acoustic sensor subsystem to create a user acoustic sensor input state in accordance with certain embodiments.

Arrow 3410 directs the flow of execution from starting operation 3332 to operation 3412. Operation 3412 performs receiving a user acoustic sensor input stream from the user acoustic sensor subsystem to create a user acoustic sensor input state. Arrow 3414 directs execution from operation 3412 to operation 3416. Operation 3416 terminates the operations of this flowchart.

Figure 42C depicts a detail flowchart of operation 3332 of Figure 41A performing receiving a user touch keypad input state from the user touch keypad input subsystem in accordance with certain embodiments.

Arrow **3430** directs the flow of execution from starting operation **3332** to operation **3432**. Operation **3432** performs receiving a user touch keypad input state from the user touch keypad input subsystem. Arrow **3434** directs execution from operation **3432** to operation **3436**. Operation **3436** terminates the operations of this flowchart.

Figure **43A** depicts a detail flowchart of operation **2004** of Figure **5** performing receiving an access card input stream from the access card interface subsystem to create an access card input state in accordance with certain embodiments.

Arrow **3450** directs the flow of execution from starting operation **2004** to operation **3452**. Operation **3452** performs receiving an access card input stream from the access card interface subsystem to create an access card input state. Arrow **3454** directs execution from operation **3452** to operation **3456**. Operation **3456** terminates the operations of this flowchart.

Figure **43B** depicts a detail flowchart of operation **2112** of Figure **7A** further performing activating the financial access mechanism reference to create the activated financial access mechanism in accordance with certain embodiments.

Arrow **3470** directs the flow of execution from starting operation **2112** to operation **3472**. Operation **3472** performs making a financial access mechanism reference message based upon the financial access mechanism reference and the access card input state. Arrow **3474** directs execution from operation **3472** to operation **3476**. Operation **3476** performs using the financial access mechanism reference message to create the activated financial access mechanism. Arrow **3478** directs execution from operation **3476** to operation **3480**. Operation **3480** terminates the operations of this flowchart.

Figure **44** depicts a detail flowchart of operation **3476** of Figure **43B** further performing using the financial access mechanism reference message to

create the activated financial access mechanism in accordance with certain embodiments.

Arrow 3490 directs the flow of execution from starting operation 3476 to operation 3492. Operation 3492 performs sending the financial access mechanism reference message to a financial access server. Arrow 3494  
5 directs execution from operation 3492 to operation 3496. Operation 3496 performs receiving a financial access mechanism activation confirmation message from the financial access server. Arrow 3498 directs execution from operation 3496 to operation 3500. Operation 3500 performs processing the  
10 financial access mechanism activation confirmation message to create the activated financial access mechanism. Arrow 3502 directs execution from operation 3500 to operation 3504. Operation 3504 terminates the operations of this flowchart.

Figure 45 depicts a detail flowchart of operation 3476 of Figure 43B further  
15 performing using the financial access mechanism reference message to create the activated financial access mechanism in accordance with certain embodiments.

Arrow 3530 directs the flow of execution from starting operation 3476 to operation 3532. Operation 3532 performs sending the financial access mechanism reference message to a vending system server. Arrow 3534  
20 directs execution from operation 3532 to operation 3536. Operation 3536 performs receiving a financial access mechanism activation confirmation message from the vending system server. Arrow 3538 directs execution from operation 3536 to operation 3540. Operation 3540 performs processing the  
25 financial access mechanism activation confirmation message to create the activated financial access mechanism. Arrow 3542 directs execution from operation 3540 to operation 3544. Operation 3544 terminates the operations of this flowchart.

Figure 46 depicts a detail flowchart of operation 3476 of Figure 43B further  
30 performing using the financial access mechanism reference message to

create the activated financial access mechanism in accordance with certain embodiments.

Arrow 3550 directs the flow of execution from starting operation 3476 to operation 3552. Operation 3552 performs sending the financial access mechanism reference message to a financial access card controller. Arrow 3554 directs execution from operation 3552 to operation 3556. Operation 3556 performs receiving a financial access mechanism activation confirmation message from the financial access card controller. Arrow 3558 directs execution from operation 3556 to operation 3560. Operation 3560 performs processing the financial access mechanism activation confirmation message to create the activated financial access mechanism. Arrow 3562 directs execution from operation 3560 to operation 3564. Operation 3564 terminates the operations of this flowchart.

Figure 47A depicts a detail flowchart of operation 2004 of Figure 5 performing receiving an access card input stream from the access card interface subsystem to create an access card input state in accordance with certain embodiments.

Arrow 3570 directs the flow of execution from starting operation 2004 to operation 3572. Operation 3572 performs receiving an access card input stream from the access card interface subsystem to create an access card input state. Arrow 3574 directs execution from operation 3572 to operation 3576. Operation 3576 terminates the operations of this flowchart.

Figure 47B depicts a detail flowchart of operation 2092 of Figure 6 C performing processing the access card input state to create the financial access mechanism reference in accordance with certain embodiments.

Arrow 3590 directs the flow of execution from starting operation 2092 to operation 3592. Operation 3592 performs processing the access card input state to create the financial access mechanism reference. Arrow 3594 directs



execution from operation **3592** to operation **3596**. Operation **3596** terminates the operations of this flowchart.

Figure **47C** depicts a detail flowchart of operation **2004** of Figure 5 performing receiving a user response input stream from the user response subsystem to  
5 create a received user response state in accordance with certain embodiments.

Arrow **3610** directs the flow of execution from starting operation **2004** to operation **3612**. Operation **3612** performs receiving a user response input stream from the user response subsystem to create a received user response  
10 state. Arrow **3614** directs execution from operation **3612** to operation **3616**. Operation **3616** terminates the operations of this flowchart.

Figure **48A** depicts a detail flowchart of operation **2092** of Figure 6C performing processing the access card input state and the received user response state to create the financial access mechanism reference in  
15 accordance with certain embodiments.

Arrow **3630** directs the flow of execution from starting operation **2092** to operation **3632**. Operation **3632** performs processing the access card input state and the received user response state to create the financial access mechanism reference. Arrow **3634** directs execution from operation **3632** to  
20 operation **3636**. Operation **3636** terminates the operations of this flowchart.

Figure **48B** depicts a detail flowchart of operation **2012** of Figure 5 performing generating the user stimulus output stream from the received user input state and from the locale identification and from the access card input state in accordance with certain embodiments.

25 Arrow **3650** directs the flow of execution from starting operation **2012** to operation **3652**. Operation **3652** performs generating the user stimulus output stream from the received user input state and from the locale identification and from the access card input state. Arrow **3654** directs execution from

operation **3652** to operation **3656**. Operation **3656** terminates the operations of this flowchart.

Figure **48C** depicts a detail flowchart of operation **3632** of Figure **48A** performing selecting the financial access mechanism reference based upon the financial access mechanism reference choice list of the access card input state and based upon the received user response state in accordance with certain embodiments.

Arrow **3670** directs the flow of execution from starting operation **3632** to operation **3672**. Operation **3672** performs selecting the financial access mechanism reference based upon the financial access mechanism reference choice list of the access card input state and based upon the received user response state. Arrow **3674** directs execution from operation **3672** to operation **3676**. Operation **3676** terminates the operations of this flowchart.

Figure **49** depicts an access card input state **1900** and various components associated with access card input state **1900** in accordance with certain embodiments.

In certain embodiments, a financial access mechanism reference **1902** may be derived from access card input state **1900**. In certain further embodiments, a financial access mechanism reference **1902** may be derived from access card input state **1900** and from the user stimulus input stream.

In certain other embodiments, a financial access mechanism choice list **1910** may be derived from access card input state **1900**. In certain further embodiments, financial access mechanism choice list **1910** contains a first financial access mechanism reference choice **1912**. In certain further embodiments, financial access mechanism choice list **1910** contains two financial access mechanism reference choices **1912** and **1914**. In certain further embodiments, financial access mechanism choice list **1910** contains more than two financial access mechanism reference choices **1912**, **1914** and **1916**.

Figure 50 depicts various components included in locale identification 1400 in accordance with certain embodiments.

In certain embodiments, locale identification 1400 includes 1472 locale topographic database 1470.

- 5 In certain embodiments, locale identification 1400 includes 1474 default map 1476.

- In certain embodiments, locale identification 1400 includes 1482 local merchant collection 1480. In certain further embodiments, local merchant collection 1480 includes 1484 local merchant entry 1486 containing at least
- 10 the merchant name and merchant location. In certain further embodiments, local merchant collection 1480 includes more than one local merchant entry. In certain other further embodiments, a local merchant entry includes a mercantile classification. In certain further embodiments, the mercantile classification includes designations for food, clothing, shelter and
- 15 transportation. In certain further embodiments, the mercantile classification includes attributed designations such as food:restaurant, food:grocery, transportation:bus, etc.

- In certain embodiments, locale identification 1400 includes 1492 user input history collection 1490. In certain further embodiments, user input history
- 20 collection includes 1494 at least one user input history bin 1496.

- Figure 51A depicts a detail flowchart of operation 2072 of Figure 6 B performing generating the user stimulus output stream from the received user input state and from the locale identification including the locale topographic database based upon the user navigation input in accordance with certain
- 25 embodiments.

Arrow 3690 directs the flow of execution from starting operation 2072 to operation 3692. Operation 3692 performs generating the user stimulus output stream from the received user input state and from the locale identification including the locale topographic database based upon the user navigation

input. Arrow **3694** directs execution from operation **3692** to operation **3696**. Operation **3696** terminates the operations of this flowchart.

Figure **51B** depicts a detail flowchart of operation **3692** of Figure **51A** further performing generating the user stimulus output stream from the received user  
5 input state and from the locale identification including the locale topographic database based upon the user navigation input in accordance with certain embodiments.

Arrow **3710** directs the flow of execution from starting operation **3692** to operation **3712**. Operation **3712** performs selecting a first of the local  
10 merchant entries of the local merchant collection based upon the user navigation input. Arrow **3714** directs execution from operation **3712** to operation **3716**. Operation **3716** performs generating the user stimulus output stream from the received user input state and from the locale identification including the locale topographic database based upon the user navigation  
15 input and based upon the first local merchant entry of the local merchant collection. Arrow **3718** directs execution from operation **3716** to operation **3720**. Operation **3720** terminates the operations of this flowchart.

Figure **52A** depicts a detail flowchart of operation **3716** of Figure **51B** performing generating a travel description from the financial access vending  
20 machine to the merchant location of the first local merchant entry of the local merchant collection based upon the locale topographic database in accordance with certain embodiments.

Arrow **3730** directs the flow of execution from starting operation **3716** to operation **3732**. Operation **3732** performs generating a travel description from  
25 the financial access vending machine to the merchant location of the first local merchant entry of the local merchant collection based upon the locale topographic database. Arrow **3734** directs execution from operation **3732** to operation **3736**. Operation **3736** terminates the operations of this flowchart.

Figure **52B** depicts a detail flowchart of operation **2022** of Figure **5** performing generating the user stimulus output stream from the received user input state and from the default map included in the locale identification in accordance with certain embodiments.

5 Arrow **3750** directs the flow of execution from starting operation **2022** to operation **3752**. Operation **3752** performs generating the user stimulus output stream from the received user input state and from the default map included in the locale identification. Arrow **3754** directs execution from operation **3752** to operation **3756**. Operation **3756** terminates the operations of this flowchart.

10 Figure **53A** depicts a detail flowchart of operation **2000** of Figure **5** performing maintaining a user input history collection comprised of at least one user input history bin in accordance with certain embodiments.

Arrow **3770** directs the flow of execution from starting operation **2000** to operation **3772**. Operation **3772** performs maintaining a user input history  
15 collection comprised of at least one user input history bin. Arrow **3774** directs execution from operation **3772** to operation **3776**. Operation **3776** terminates the operations of this flowchart.

Figure **53B** depicts a detail flowchart of operation **3772** of Figure **53A** further performing maintaining a user input history collection comprised of at least  
20 one user input history bin in accordance with certain embodiments.

Arrow **3790** directs the flow of execution from starting operation **3772** to operation **3792**. Operation **3792** performs reviewing the received user input state to select a first of the user input history bins of the user input history collection. Arrow **3794** directs execution from operation **3792** to operation  
25 **3796**. Operation **3796** performs modifying the first user input history bin of the user input history collection based upon the received user input state. Arrow **3798** directs execution from operation **3796** to operation **3800**. Operation **3800** terminates the operations of this flowchart.

Figure 54 depicts a displayed user output stream on a user video screen 5000 indicating 5120 that the user should enter a PIN number, which will be displayed in region 5110, in accordance with certain embodiments.

Figure 55 depicts a displayed user output stream on a user video screen 5000 indicating a transaction region 5200 and an advertising region 5240, in accordance with certain embodiments.

Transaction region 5200 comprises a user identified response 5210 and a selection list of financial access mechanisms and mercantile transactions including quick cash 5220, get cash 5222, deposit 5224, transfer 5226, balances 5228, buy stamps 5230 and what's new 5232. There is a cancel region 5234 in the transaction region 5200. Each of the selection list regions and the cancel region represents a portion of a touch sensitive membrane covering the user video screen upon which the user may touch the display to have the financial access vending machine computer register a response.

Advertising region 5240 includes an advertising message, advertisement picture and Logo 5242. Note that advertising region 5240 may include any combination of some or all of these components, and multiple instances of certain of these components. These components often include copyrighted and trademarked material of the mercantile interests paying fees for the privilege of being seen on the user view screen to the financial access vending machine owner or franchise owner. In certain embodiments, there may be more than one advertising region 5240 representing differing mercantile interests.

As used herein, a mercantile interest includes but is not limited to organizations considered for profit by their national or regional tax boards. Mercantile organizations include but are not limited to religious organizations advertising gambling events, such as bingo games, humanitarian organizations advertising for food and clothing for disaster victims, political parties advertising political candidates for upcoming elections, to name just a few examples.

Note that in certain embodiments, the background of region 5200 and/or 5240 may include motion video. In certain embodiments, specific components of region 5200 and/or 5240 may include motion video.

Figure 56 depicts a displayed user output stream on a user video screen 5000  
5 indicating a transaction region 5300 and an advertising region 5360, in accordance with certain embodiments.

Transaction region 5300 comprises a selection list of financial access mechanisms and mercantile transactions including checking 5330, saving 5332, MMA/MRA 5334, Credit Card 5326, Credit Line 5328, Investment 5340  
10 and Other 5342. There is an amount button region 5350, which activates a pull down selection menu. There is a Back region 5334 and OK region 5322 of the transaction region 5300. Each of the selection list regions and the Back region and OK region represents a portion of a touch sensitive membrane covering the user video screen upon which the user may touch the display to  
15 have the financial access vending machine computer register a response.

Advertising region 5360 includes an advertising message, logo and find out more region 5362. The find out more region 5362 represents a portion of a touch sensitive membrane covering the user video screen upon which the user may touch the display to have the financial access vending machine  
20 computer register a response. Note that advertising region 5360 may include any combination of some or all of these components, and multiple instances of certain of these components. These components often include copyrighted and trademarked material of mercantile interests paying fees for the privilege of being seen on the user view screen to the financial access vending  
25 machine owner or franchise owner. In certain embodiments, there may be more than one advertising region 5360 representing differing mercantile interests.

Note that in certain embodiments, the background of region 5300 and/or 5360 may include motion video. In certain embodiments, specific components of  
30 region 5300 and/or 5360 may include motion video.

Figure 57 depicts a displayed user output stream on a user video screen 5000 indicating an advertising region 5370, in accordance with certain embodiments.

Advertising region 5370 includes an advertisement 5372, motion video  
5 advertising region 5374, logo 5376 as well as a cancel region 5380 and an  
enrollment region 5382. The find out more region 5372 represents a portion of  
a touch sensitive membrane covering the user video screen upon which the  
user may touch the display to have the financial access vending machine  
computer register a response. Note that advertising region 5370 may include  
10 any combination of some or all of these components, and multiple instances  
of certain of these components. These components often include copyrighted  
and trademarked material of the mercantile interests paying fees for the  
privilege of being seen on the user view screen to the financial access  
vending machine owner or franchise owner. In certain embodiments, there  
15 may be more than one advertising region 5370 representing differing  
mercantile interests.

Note that in certain embodiments, the background of region 5370 may include  
motion video. In certain embodiments, multiple specific components of 5370  
may include motion video.

20 Figure 58 depicts a displayed user output stream on a user video screen 5000  
indicating a transaction region 5400 and an advertising region 5410, in  
accordance with certain embodiments.

Transaction region 5400 comprises a selection list of financial access  
mechanisms and mercantile transactions including checking 5430, saving  
25 5432, MMA/MRA 5434, Credit Card 5436, Credit Line 5438, Investment 5440  
and Other 5442. There is an amount button region 5450, which activates a  
pull down selection menu. There is a Back region 5424 and OK region 5422  
of the transaction region 5400. Each of the selection list regions and the Back  
region and OK region represents a portion of a touch sensitive membrane



covering the user video screen upon which the user may touch the display to have the financial access vending machine computer register a response.

Advertising region **5410** includes an advertising message and logo. Note that advertising region **5410** may include any combination of some or all of these components, and multiple instances of certain of these components. These components often include copyrighted and trademarked material of the mercantile interests paying fees for the privilege of being seen on the user view screen to the financial access vending machine owner or franchise owner. In certain embodiments, there may be more than one advertising region **5410** representing differing mercantile interests.

Note that in certain embodiments, the background of region **5400** and/or **5410** may include motion video. In certain embodiments, specific components of region **5400** and/or **5410** may include motion video.

Figure **59** depicts a displayed user output stream on a user video screen **5000** indicating a transaction status region **5412** and an advertising region **5410** presenting a mercantile offer to contract, in accordance with certain embodiments.

Advertising region **5410** includes an advertising motion video region **5430** including an advertising message, logo **5432** and a user acceptance region **5420**. Note that advertising region **5410** may include any combination of some or all of these components, and multiple instances of certain of these components. These components often include copyrighted and trademarked material of the mercantile interests paying fees for the privilege of being seen on the user view screen to the financial access vending machine owner or franchise owner. In certain embodiments, there may be more than one advertising region **5410** representing differing mercantile interests.

Note that in certain embodiments, the background of region **5412** and/or **5410** may include motion video. In certain embodiments, specific components of region **5412** and/or **5410** may include motion video.

Figure 60 depicts a displayed user output stream on a user video screen 5000 indicating a transaction status region 5512 and an advertising region 5510 showing acknowledgement of the user acceptance of a mercantile offer to contract creating a contract, in accordance with certain embodiments.

- 5 Advertising region 5510 includes an advertising motion video region 5530 including a message acknowledging the user acceptance of the mercantile offer to contract and logo 5532. This is the point in the interaction in which a contract has been completed. There has been a meeting of minds which reasonably constitutes a commitment between the parties, namely the user as  
10 identified by the financial access vending machine and the merchant making the offer as shown in Figure 59. The user signaled acceptance by pushing the region 5420 of Figure 59. This screen indicates that the merchant is acknowledging the contract offer and acceptance as shown in Figure 59.

- Note that advertising region 5510 may include any combination of some or all  
15 of these components, and multiple instances of certain of these components. These components often include copyrighted and trademarked material of the mercantile interests paying fees for the privilege of being seen on the user view screen to the financial access vending machine owner or franchise owner. In certain embodiments, there may be more than one advertising  
20 region 5510 representing differing mercantile interests.

Note that in certain embodiments, the background of region 5512 and/or 5510 may include motion video. In certain embodiments, specific components of region 5512 and/or 5510 may include motion video.

- Figure 61 depicts a displayed user output stream on a user video screen 5000  
25 indicating a transaction region 5800, in accordance with certain embodiments.

Transaction region 5800 comprises a selection list of financial access mechanisms and mercantile transactions including Checking 5830, Saving 5832, MMA/MRA 5834, Credit Card 5836, Credit Line 5838, Investment 5840 and Other 5842. The MMA/MRA region 5834 and Credit Line region 5836 are

highlighted in comparison to the other regions just mentioned. Such highlighting may be applied to various regions to indicate availability of the activity associated with the region in certain embodiments.

Transaction region **5800** further comprises an Amount button region **5850**,  
5 which when touched, activates a pull down selection menu. Transaction  
region **5800** further comprises a Back region **5834** and OK region **5822**. Each  
of the selection list regions and the Back region and OK region represents a  
portion of a touch sensitive membrane covering the user video screen upon  
which the user may touch the display to have the financial access vending  
10 machine computer register a response.

Note that in certain embodiments, the background of region **5800** may include motion video. In certain embodiments, specific components of region **5800** may include motion video.

Figure **62** depicts a displayed user output stream on a user video screen **5000**  
15 indicating a transaction region **5900**, in accordance with certain embodiments.

Transaction region **5900** comprises a selection list of financial access transaction amounts including \$20 **5920**, \$40 **5922**, \$60 **5924**, \$80 **5926**, \$100 **5928**, \$200 **5930** and Other **5932**. Transaction region **5900** further comprises a Back region **5934** and OK region **5932**. Transaction region **5900**  
20 further comprises a financial transaction selection pull down menu region **5910** indicating the current financial transaction (Checking). Each of the selection list regions, financial transaction selection pull down menu region **5910**, the Back region and OK region represent a portion of a touch sensitive membrane covering the user video screen upon which the user may touch the  
25 display to have the financial access vending machine computer register a response.

Figure **63** depicts a displayed user output stream on a user video screen **5000** indicating a transaction region **6000**, in accordance with certain embodiments.

Transaction region **6000** comprises a financial access transaction amounts pull down menu region **6020** indicating a current amount (\$80). Transaction region **6000** further comprises a Back region **6034** and OK region **6032**. Transaction region **6000** further comprises a financial transaction selection pull down menu region **6010** indicating the current financial transaction (Checking). Each of financial access transaction amounts pull down menu region **6020**, financial transaction selection pull down menu region **6010**, the Back region and OK region represent a portion of a touch sensitive membrane covering the user video screen upon which the user may touch the display to have the financial access vending machine computer register a response.

Note that in certain embodiments, the background of region **6000** may include motion video. In certain embodiments, specific components of region **6000** may include motion video.

Figure **64** depicts a displayed user output stream on a user video screen **5000** indicating a transaction region **6100**, in accordance with certain embodiments.

Transaction region **6100** comprises a financial access transaction amount entry region **6112** indicating an amount that the user enters through a keypad **6110**. Transaction region **6100** further comprises a Back region **6134** and OK region **6132**. Transaction region **6100** further comprises a financial transaction selection pull down menu region **6120** indicating the current financial transaction (Savings). Each of financial transaction selection pull down menu region **6120**, the Back region and OK region represent a portion of a touch sensitive membrane covering the user video screen upon which the user may touch the display to have the financial access vending machine computer register a response.

Note that in certain embodiments, the background of region **6100** may include motion video. In certain embodiments, specific components of region **6100** may include motion video.

Figure 65 depicts a displayed user output stream on a user video screen 5000 indicating a displayed map 6200, in accordance with certain embodiments.

In certain embodiments, displayed map 6200 is a default map 1476 of Figure 50 showing the location of the financial access vending machine 6210. In  
5 certain further embodiments, locations of various categories of commonly requested services, products and points of interest are further denoted. Displayed maps include legend regions 6230 in certain further embodiments. In certain other further embodiments, specific mercantile interests are denoted 6220, 6224 (respectively) and described 6234 and 6236 (respectively). Note  
10 that in certain embodiments, specific mercantile interests are denoted and/or described based upon an advertising contract between the owner of the financial access vending machine and those mercantile interests.

In certain embodiments, locale identification includes a locale topographical database 1470, which is used to generate displayed map 6200 and, in certain  
15 further embodiments, location legend 6230. In certain further embodiments, locale identification includes a locale topographical database 1470 and local merchant collection 1480, which is used to generate displayed map 6200 and, in certain further embodiments, location legend 6230.

Locale topographical database 1470 is used to create a travel description  
20 6222, in certain further embodiments. Locale topographical database 1470 and local merchant entry 1486 of local merchant collection 1480 are used to create a travel description 6224, in certain further embodiments.

Note that in certain embodiments, the background of region 5000 may include motion video. In certain embodiments, specific components of region 5000  
25 may include motion video.

Figure 66 depicts a collection of object families contained in a program operating system residing in accessibly coupled computer memory of at least one computer in a computer system 1000 controlling a financial access vending machine in accordance with certain embodiments.

In certain embodiments, program code segments within core service object family 7000 is responsible for managing the health of the financial access vending machine from both the device and application services perspectives. Program code segments within core service object family 7000 support  
5 providing a consistent framework from which systems health of the financial access vending machine can be determined. In certain embodiments, program code segments within core service object family 7000 support monitoring both devices and application services. In certain embodiments, program code segments within core service object family 7000 support  
10 detecting problems at both the system and application layers. In certain embodiments, program code segments within core service object family 7000 support providing a reliable reporting mechanism. In certain embodiments, program code segments within core service object family 7000 support providing sufficient security in the case where things do go wrong, or in other  
15 words, minimize risk of financial loss and system security.

Communication between core service object family 7000 and ATM director object family 7100 is depicted by arrow 7010.

In certain embodiments, program code segments within ATM director object family 7100 manage the financial access vending machine. It controls all the  
20 other object families shown in this diagram. In certain further embodiments, program code segments within ATM director object family 7100 support flexible interface for any product to be deployed on it. In certain further embodiments, program code segments within ATM director object family 7100 support a central point of communication between all the object families  
25 shown in this diagram. In certain further embodiments, program code segments within ATM director object family 7100 support implementation of different business rules regarding advertising and financial access interactions with merchant access mechanisms for contracting.

Communication between ATM director object family 7100 and locale  
30 identification object family 7300 is depicted by arrow 7130.

In certain embodiments, program code segments within locale identification object family **7300** maintain the locale identification of the financial access vending machine. In certain further embodiments, program code segments within locale identification object family **7300** maintain the locale identification including a local user access profile collection of local access profile nodes of the financial access vending machine. In certain further embodiments, program code segments within locale identification object family **7300** maintain the locale identification including a default map of the financial access vending machine. In certain embodiments, program code segments within locale identification object family **7300** maintain the locale identification including motion video sequences of the financial access vending machine. In certain embodiments, program code segments within locale identification object family **7300** maintain the locale identification including advertising information of the financial access vending machine. In certain embodiments, program code segments within locale identification object family **7300** maintain the locale identification including a local merchant collection of merchant entries of the financial access vending machine.

Communication between ATM director object family **7100** and device management object family **7400** is depicted by arrow **7140**.

Communication between core service object family **7000** and device management object family **7400** is depicted by arrow **7040**.

In certain embodiments, program code segments within device management object family **7400** show the interactions with supporting frameworks and the vendor specific interfaces that allow device control. In certain embodiments, program code segments within device management object Family **7400** support multiple vendor-made devices within the financial access vending machine, such as video display interface PC cards, dispenser interfaces, printers and other such devices. In certain embodiments, program code segments within Device management Object Family **7400** support state management to support simultaneous device operations.

Communication between ATM director object family **7100** and financial object family **7200** is depicted by arrow **7140**.

Communication between core service object family **7000** and financial object family **7200** is depicted by arrow **7040**.

- 5 In certain embodiments, program code segments within financial object family **7200** support communication and transactions with financial access mechanisms. In certain further embodiments, program code segments within financial object family **7200** support use of Nonstop-Tuxedo, and Nonstop-TS/MP (Transaction Services Massively Parallel) as the middlewares to  
10 support the various transactions.

- In certain further embodiments, program code segments within financial object family **7200** support secure transactions and maintenance of transactional integrity. In certain further embodiments, program code segments within financial object family **7200** support the ability to do acquired  
15 transactions. In certain further embodiments, program code segments within financial object family **7200** support the capability of authorizing a financial access mechanism customer's PIN and access card. In certain further embodiments, program code segments within financial object family **7200** support the ability to do acquired transactions.

- 20 In certain further embodiments, program code segments within financial object family **7200** support the ability to do financial transactions (like Withdrawal, Balance Inquiry, Transfer, etc.). In certain further embodiments, program code segments within financial object family **7200** support the ability to log transactions to a vending system server, and to the log on the financial  
25 access vending machine. In certain further embodiments, the log is maintained by program code segments of the core services object family **7000**.



In certain further embodiments, program code segments within financial object family 7200 support the ability of creating settlement records for all the financial access vending machine computers.

5 In certain further embodiments, program code segments within financial object family 7200 support the ability to maintain transaction integrity following a system or component failure. These failures may include software crashes, database failures, and hardware failures such as financial access vending machine cash dispenser jam incidents. In certain further embodiments, program code segments within financial object family 7200 support  
10 maintaining consistency and accuracy between financial access vending machine results and the banks financial data stores.

In certain further embodiments, program code segments within financial object family 7200 support the ability to systematically balance the amount of cash, stamps, and various other items that can be dispensed from the  
15 dispensers.

In certain further embodiments, program code segments within financial object family 7200 support the ability to send a transaction to the another node for various services provided within the financial framework, when the financial access vending machine communication with the financial access  
20 mechanism is impaired. In certain further embodiments, program code segments within financial object family 7200 support the ability to do business resumption.

In certain further embodiments, program code segments within financial object family 7200 support the ability to do multiple transactions and form  
25 transaction sets of the various transactions. In certain further embodiments, program code segments within financial object family 7200 support the ability to provide an easy-to-use interface for doing various system management and administration functions.

Figure 67 depicts a simplified system level diagram of the various communicative couplings of financial access vending machines 1000 and financial access mechanisms 8100 including financial access mechanism servers 8110, merchant access mechanisms 8200, vending system servers 8000, and other entities in accordance with certain embodiments.

Each financial access vending machine 1000 communicatively couples 8002 to a communication network 8004, also communicatively coupled 8006 to vending system server 8000, in certain embodiments. Each financial access vending machine 1000 communicatively couples 8112 to a financial access mechanism server 8110 via couplings 8002 to 8004 to 8006 to 8114 to financial access mechanism server 8110, in certain further embodiments. Each financial access vending machine 1000 communicatively couples 8202 to merchant access mechanism 8200 via couplings 8002 to 8004 to 8006 to 8230 to merchant access mechanism 8200, in certain further embodiments.

Each financial access vending machine 1000 communicatively couples 8102 to a financial access mechanism 8100, in certain embodiments. Each financial access vending machine 1000 communicatively couples 8112 to financial access mechanism server 8110, in certain embodiments. Each financial access vending machine 1000 communicatively couples 8202 to merchant access mechanism 8200, in certain embodiments.

Vending system server 8000 communicatively couples 8302 to web server 8300, in certain embodiments. Users 8310 communicatively couple 8312 via network 8320 further coupled 8304 to web server 8300, in certain embodiments. Web server 8300 maintains 8332 a web site 8330, in certain further embodiments.

In certain further embodiments, users 8310 access (8312 to 8320 to 8304 through web server 8300 maintaining 8332) web site 8330 to modify their user profile in the user profile collection 8020 maintained with vending system server 8000 via coupling 8302.

In certain further embodiments, users **8310** access (**8312** to **8320** to **8304** through web server **8300** maintaining **8332**) web site **8330** transacting business, which modifies their user profile in the user profile collection **8020** maintained with vending system server **8000** via coupling **8302**.

- 5 In certain embodiments, secure command and control client **8300** interacts **8302** with vending system server **8000**. In certain further embodiments, secure command and control client **8300** interacts **8302** with vending system server **8000** to direct the maintenance of locale ID collection **8010**. In certain further embodiments, the financial access vending machines **1000** with locale
- 10 identifications **1400** each access (**8002** to **8004** to **8006**) to update their locale identifications **1400** based upon the locale ID collection **8010**.

- In certain further embodiments, secure command and control client **8300** interacts **8302** with vending system server **8000** to direct the maintenance of user profile collection **8020**. In certain further embodiments, the financial
- 15 access vending machines **1000** with locale identifications **1400** with local user access profile collections **1410** each access (**8002** to **8004** to **8006**) to update their local user access profile collections **1410** based upon the user profile collection **8020**.

- In certain other further embodiments, secure command and control client
- 20 **8300** interacts **8302** with vending system server **8000** to direct the maintenance of user profile collection **8020**. In certain further embodiments, the financial access vending machines **1000** with local user access profile collections **1410** each access (**8002** to **8004** to **8006**) to update their local user access profile collections **1410** based upon the user profile collection
- 25 **8020**.

- As used herein in networks refer to communications systems comprised of at least one physical transport layer and supporting at least one messaging protocol. Note that the messaging protocol in most circumstances is transparent to the users. The physical transport layer includes but is not
- 30 limited to wireless and wireline physical transport layers.

Figure 68 depicts a simplified block diagram of a computer system 1000 to control a financial access vending machine supporting a local user access profile collection in accordance with certain embodiments.

As in Figure 4, computer system 1000 comprises a computer 1100 accessibly coupled 1102 to computer memory 1200. As used herein a computer system comprises at least one computer accessibly coupled to a computer memory. In certain embodiments, computer system 1000 comprises at least two computers, each with separate accessibly coupled computer memories. In certain embodiments, computer system 1000 comprises at least two computers, each sharing an accessibly coupled computer memory.

As in Figure 4, computer system 1000 further comprises a user identifying interface subsystem 1300 communicatively coupled 1106 with computer 1100. User identifying subsystem 1300 includes both at least one mechanism presenting a user stimulus output stream to a user and at least one mechanism stimulated by a user to generate a user stimulus input stream. Embodiments of this subsystem will be discussed in greater detail later. User identifying interface subsystem 1300 can gather information sufficient to adequately identify the user for purposes of transacting financial and mercantile exchanges and agreements. In certain further embodiments, user identifying interface subsystem 1300 further provides the user with mercantile offers, selection capability for financial and mercantile transactions and presentation of graphical data including at least one of the collection of presentation maps and motion video.

Unlike Figure 4, computer system 1000 further comprises local user access profile collection 1410 communicatively coupled 1140 with computer 1100. In certain embodiments, local user access profile collection 1410 contains an encapsulated system component coupled by an internal communication transport layer 1140 to computer 1100. Such an internal communication transport layer 1140 may be wireline in certain further embodiments. In certain further embodiments, the wireline transport layer 1140 includes an

optical fiber, coaxial cable, twisted pair, ribbon cable, or buss strips on a printed circuit board. In certain further embodiments, local user access profile collection 1410 encapsulated system component further contains nonvolatile memory. In certain further embodiments, local identification 1410  
5 encapsulated system component contains writable nonvolatile memory. In certain further embodiments, at least a part of the nonvolatile memory of local user access profile collection 1410 encapsulated system component is organized and accessed as a file management system. In certain other further embodiments, local user access profile collection 1410 encapsulated system  
10 component contains write-once nonvolatile memory.

In certain embodiments, local user access profile collection 1410 resides in part of computer memory 1200. In certain further embodiments, local identification 1410 resides in a portion of at least one nonvolatile memory component of computer memory 1200. In certain further embodiments, local  
15 user access profile collection 1410 is organized and accessed 1140 as a file management system.

In certain embodiments, communicative coupling 1140 between local identification 1410 and computer 1100 employs coding technology. In certain further embodiments, communicative coupling 1140 employs distinct coding  
20 technologies depending upon whether the computer 1100 is performing reading or writing access of local user access profile collection 1410. Coding technology as used herein will refer to error detection codes, error detection and correction codes, encryption codes and combinations of these coding technologies.

25 The financial access vending machine is controlled by the computer system 1000 executing a program operating system of program code segments residing in the accessibly coupled computer memory of at least one of the computers of the computer system.

In certain embodiments, locale identification **1400** includes **1402** local user access profile collection **1410** which in turn contains **1412** local access profile node **1420**.

In certain further embodiments, local access profile node **1420** contains **1432**  
5 a textual presentation content **1430**.

In certain other further embodiments, local access profile node **1420** contains **1442** a graphical presentation content **1440**.

In certain further embodiments, local access profile node **1420** contains **1432** graphical presentation content **1440**, which in turn contains **1452** motion video  
10 content presentation **1450**.

In certain further embodiments, local access profile node **1420** contains **1462** a synchronized audio sequence **1460**. In certain embodiments, the synchronization of the synchronized audio sequence **1460** is based upon local access profile node **1420**. In certain further embodiments, the synchronization  
15 of the synchronized audio sequence **1460** is based upon graphical presentation content **1440** as whole. In certain further embodiments, the synchronization of the synchronized audio sequence **1460** is based upon motion video content presentation **1450**. In certain other embodiments, the synchronization of the synchronized audio sequence **1460** is based upon  
20 textual presentation content **1430**.

In certain further embodiments, local access profile node **1420** contains more than one synchronized audio sequence.

In certain further embodiments, local access profile node **1420** contains **1432** graphical presentation content **1440**, containing more than one motion video  
25 content presentation.

In certain embodiments local access profile node **1420** contains more than one graphical presentation content.

- In certain other further embodiments, local user access profile collection **1410** contains **1414** a second local access profile node **1422**. Additionally, local access profile node **1420** contains **1472** a link **1470** referencing **1474** the second local access profile node **1422**. In certain further embodiments, local user access profile collection **1410** contains a third local access profile node, and local access profile node **1420** contains a second link, referencing the third local access profile node. In certain further embodiments, a local access profile node may contain more than two links referencing other local access profile nodes, which may or may not all be distinct local access profile nodes.
- Figure **69** depicts a flowchart performing a method of contracting between an identified user operating a financial access vending machine communicatively coupled to a financial access mechanism and the user financial access vending machine communicatively coupled to a merchant access mechanism in accordance with certain embodiments.
- Operation **3810** starts the operations of this flowchart. Arrow **3812** directs the flow of execution from operation **3810** to operation **3814**. Operation **3814** performs the identified user operated financial access vending machine receiving an offer message sent by the merchant access mechanism to create a received offer message. Arrow **3816** directs execution from operation **3814** to operation **3818**. Operation **3818** performs the user financial access vending machine sending the financial access mechanism a financial acceptance request message based upon the received offer message and based upon an acceptance action of the identified user recognized by the financial access vending machine. Arrow **3820** directs execution from operation **3818** to operation **3822**. Operation **3822** performs the user financial access vending machine receiving a financial message from the financial access mechanism a received acceptance response financial message based upon the received offer message. Arrow **3824** directs execution from operation **3822** to operation **3826**. Operation **3826** performs the merchant access mechanism receiving an offer acceptance message based upon the received acceptance response financial message to create a contract. Arrow

**3828** directs execution from operation **3826** to operation **3830**. Operation **3830** terminates the operations of this flowchart.

Figure **70A** depicts a detail flowchart of operation **3826** of Figure **69** performing the merchant access mechanism sending an offer acceptance acknowledgement message based upon the received offer acceptance message to the financial access vending machine in accordance with certain embodiments.

Arrow **3850** directs the flow of execution from starting operation **3826** to operation **3852**. Operation **3852** performs the merchant access mechanism sending an offer acceptance acknowledgement message based upon the received offer acceptance message to the financial access vending machine. Arrow **3854** directs execution from operation **3852** to operation **3856**. Operation **3856** terminates the operations of this flowchart.

Figure **70B** depicts a detail flowchart of operation **3810** of Figure **69** performing the financial access vending machine receiving the offer acceptance acknowledgement message to create a received offer acceptance acknowledgement message in accordance with certain embodiments.

Arrow **3870** directs the flow of execution from starting operation **3810** to operation **3872**. Operation **3872** performs the financial access vending machine receiving the offer acceptance acknowledgement message to create a received offer acceptance acknowledgement message. Arrow **3874** directs execution from operation **3872** to operation **3876**. Operation **3876** terminates the operations of this flowchart.

Figure **70C** depicts a detail flowchart of operation **3872** of Figure **70B** performing displaying the received offer acceptance acknowledgement message to create a confirmed contract message to the identified user in accordance with certain embodiments.

Arrow **3890** directs the flow of execution from starting operation **3872** to operation **3892**. Operation **3892** performs displaying the received offer



acceptance acknowledgement message to create a confirmed contract message to the identified user. Arrow 3894 directs execution from operation 3892 to operation 3896. Operation 3896 terminates the operations of this flowchart.

- 5 A build process generates such program operating systems for the financial access vending machine and a separate program operating system to reside on one or more vending machine server computers is described as follows:

Step 1: These control program operating systems include a realtime operating system interface module, which provide access to the realtime operating  
10 system tools residing on the relevant computer(s), as well as several modules which are optimally arranged as previously disclosed above.

Step 2: The various modules are often translated from source language descriptions of their activities to an appropriate compiled or assembled format, which may include relocatable loader formats of native code, compressed  
15 data formats of images and image sequences, audio sequences as well as interpreted byte code languages such as used for JAVA.

Step 3: Further included in the build process are modules to initialize and run the various peripheral IO systems involved, organized about the object families discussed.

- 20 Step 4: Once the modules have been integrated into a prototype implementation, an implementation verification process is performed, which confirms basic operational functionality of the integrated modules.

Step 5: If problems are found in the basic functionality, the responsible source code modules are identified and modified. After which the build process  
25 proceeds to step 2 above.

Step 6: Once the basic functionality has been confirmed, a preliminary, experimental deployment of the program operating system is done where real users may interact at a few controlled experimental sites.

Step 7: These experimental sites are monitored and when the performance reaches a point of sufficient reliability, the build process of the program operating system is considered finished.

The preceding embodiments have been provided by way of example and are  
5 not meant to constrain the scope of the following claims.

### Claims

1. A method of controlling a vending machine containing a user identifying interface subsystem and a locale identification based upon said locale identification, comprising the steps of:
  - 5 receiving a user stimulus input stream from said user identifying interface subsystem to create a received user input state;  
generating a user stimulus output stream from said received user input state and from said locale identification including a local user access profile collection; and
  - 10 sending said user stimulus output stream to said user identifying interface subsystem.
2. A method as recited in Claim 1,
  - wherein receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is
  - 15 further comprised of the step of:  
processing said received user input state to create a user navigation input; and  
wherein generating said user stimulus output stream from said received user input state and from said locale identification including said
  - 20 local user access profile collection is further comprised of the step of:  
generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said user navigation input.
3. A method as recited in Claim 2,
  - 25 wherein receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of the step of:  
processing said received user input state to create a financial access mechanism reference.
- 30 4. A method as recited in Claim 3, further comprising the step of:

activating said financial access mechanism reference to create an activated financial access mechanism.

5. A method as recited in Claim 4,

wherein receiving said user stimulus input stream from said user  
5 identifying interface subsystem to create said received user input state is further comprised of the step of:

processing said received user input state to create a user identification;  
and

wherein activating said financial access mechanism reference to create  
10 said activated financial access mechanism is further comprised of the step of:

activating said financial access mechanism reference based upon said user identification to create an activated financial access mechanism.

6. A method as recited in Claim 5,

wherein generating said user stimulus output stream from said  
15 received user input state and from said locale identification including said local user access profile collection is further comprised of the step of:

generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said user navigation input and based upon  
20 said user identification.

7. A method as recited in Claim 6, further comprising the step of:  
maintaining said locale identification.

8. A method as recited in Claim 7, further comprising the step of:  
receiving from said activated financial access mechanism to create a  
25 received financial message; and

sending an outgoing financial message to said activated financial access mechanism.

9. A method as recited in Claim 8,

wherein receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of the step of:

processing said received user input state to create a financial transaction request message as said outgoing financial message;

wherein receiving from said activated financial access mechanism said received financial message is further comprised of the step of the step of:

determining a received financial transaction response message type from said received financial message; and

further comprising the step of processing said received financial message to create a financial transaction response when finding said received financial transaction message type of said received financial message.

10. A method as recited in Claim 9,

wherein receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of the step of:

processing said received user input state to create a merchant access request containing a merchant access identifier; and

further comprising the step of opening a merchant access mechanism based upon said merchant access request containing said merchant access identifier.

11. A method as recited in Claim 10, further comprising the step of:

receiving a merchant offer message from said merchant access mechanism; and

wherein generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of the step of:

inserting said merchant offer message into said user stimulus output stream.

12. A method as recited in Claim 11,  
wherein receiving from said activated financial access mechanism said  
received financial message is further comprised of the step of:  
determining a confirmation financial response message type from said  
5 received financial message; and  
further comprising the step of:  
generating a user acceptance message to said merchant access  
mechanism based upon said user acceptance state of said merchant offer  
message and based upon said confirmation financial response message type  
10 from said received financial message; and  
sending said user acceptance message to said merchant access  
mechanism.
13. A method as recited in Claim 12,  
wherein receiving from said activated financial access mechanism said  
15 received financial message is further comprised of the step of:  
determining a confirmation financial response message type from said  
received financial message; and  
further comprising the step of:  
generating a user acceptance message to said merchant access  
20 mechanism based upon said user acceptance state of said merchant offer  
message and based upon said confirmation financial response message type  
from said received financial message; and  
sending said user acceptance message to said merchant access  
mechanism.
- 25 14. A method as recited in Claim 13, further comprising the step of:  
receiving an acknowledgement message of said user acceptance  
message from said merchant access mechanism to create a received  
acknowledgement message of said user acceptance message; and  
creating a financial acknowledgement message based upon said  
30 received acknowledgement message of said user acceptance message as  
said outgoing financial message.

15. A method as recited in Claim 14,  
wherein said financial access vending machine further contains a  
dispenser subsystem controlled by a dispenser subsystem interface  
communicatively coupled to said computer of said computer system; and  
5 further comprising the step of:  
creating a dispenser command based upon said received  
acknowledgement message of said user acceptance message; and  
operating said dispenser subsystem based upon said dispenser  
command.
- 10 16. A method as recited in Claim 15,  
wherein said dispenser subsystem is comprised of a certificate  
dispenser controlled by a certificate dispenser interface contained in said  
dispenser subsystem interface and further communicatively coupling to said  
computer of said computer system.
- 15 17. A method as recited in Claim 15,  
wherein said dispenser subsystem is comprised of a money dispenser  
controlled by a money dispenser interface contained in said dispenser  
subsystem interface and further communicatively coupling to said computer of  
said computer system.
- 20 18. A method as recited in Claim 10,  
wherein said financial access vending machine further contains a  
dispenser subsystem controlled by a dispenser subsystem interface  
communicatively coupled to said computer of said computer system; and  
further comprising operating said dispenser system based upon  
25 receiving a merchant dispenser command message further comprising the  
step of:  
receiving said merchant dispenser command message from said  
merchant access mechanism to create a received merchant dispenser  
command message;

creating a merchant dispenser command based upon said received merchant dispenser command message; and

operating said dispenser subsystem based upon said merchant dispenser command.

5 19. A method as recited in Claim 18,

wherein receiving from said activated financial access mechanism said received financial message is further comprised of the step of:

determining an approval response message type of a dispenser command permission message from said received financial message; and

10 wherein creating a merchant dispenser command based upon said received merchant dispenser command message is further comprised of the step of:

creating said dispenser command permission message as said outgoing financial message; and

15 creating said merchant dispenser command based upon said received merchant dispenser command message and based upon said approval response message type of said dispenser command permission message from said received financial message.

20. A method as recited in Claim 8,

20 wherein receiving from said activated financial access mechanism said received financial message is further comprised of the step of:

determining a local user access profile maintenance message type from said received financial message; and

25 wherein maintaining said locale identification including said local user access profile collection of at least one local access profile node is further comprised of the step of:

maintaining said local user access profile collection based upon said local user access profile maintenance message type of said received financial message.

30 21. A method as recited in Claim 8,



wherein said financial access vending machine further contains a dispenser subsystem; and

further comprising the step of;

creating a dispenser command; and

5     operating said dispenser subsystem based upon said dispenser command.

22.   A method as recited in Claim 21,

wherein receiving from said activated financial access mechanism said received financial message is further comprised of the step of:

10     determining a dispenser command option message type from said received financial message; and

wherein generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of the step of:

15     generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said dispenser command option message type of said received financial message.

23.   A method as recited in Claim 22,

20     wherein receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of the step of:

processing said received user input state to create a user dispenser option command; and

25     wherein creating said dispenser command is comprised of the step of:  
creating said dispenser command based upon said user dispenser option command.

24.   A method as recited in Claim 21,

wherein receiving from said activated financial access mechanism said  
30   received financial message is further comprised of the step of:

determining a dispenser command message type from said received financial message; and

wherein creating said dispenser command is further comprised of the step of:

- 5        creating said dispenser command based upon said dispenser command message type from said received financial message.

25.    A method as recited in Claim 7,

wherein maintaining said locale identification is further comprised of the step of:

- 10       maintaining said locale identification based upon said activated financial access mechanism.

26.    A method as recited in Claim 25,

wherein maintaining said locale identification is further comprised of the step of:

- 15       maintaining said locale identification based upon said activated financial access mechanism and based upon said user identification.

27.    A method as recited in Claim 7,

wherein maintaining said locale identification is further comprised of the step of:

- 20       maintaining said locale identification based upon said user identification.

28.    A method as recited in Claim 7,

wherein maintaining said locale identification is further comprised of the step of:

- 25       creating a first local access profile node in said local user access profile collection included in said locale identification.

29.    A method as recited in Claim 7,

wherein maintaining said locale identification is further comprised of the step of:

deleting a first local access profile node from said local user access profile collection included in said locale identification.

30. A method as recited in Claim 7,

wherein maintaining said locale identification is further comprised of the  
5 step of:

modifying a first local access profile node in said local user access profile collection included in said locale identification.

31. A method as recited in Claim 7,

wherein a first of said local access profile nodes in said local user  
10 access profile collection included in said locale identification contains a textual presentation content; and

wherein generating said user stimulus output stream from said received user input state and from said locale identification is further comprised of the step of:

15 selecting said first local access profile node in said local user access profile collection included in said locale identification as a presentation node; and

generating said user stimulus output stream from said received user input state and from said textual presentation content of said presentation  
20 node.

32. A method as recited in Claim 7,

wherein a first of said local access profile nodes in said local user access profile collection contains a graphical presentation content;

wherein generating said user stimulus output stream from said  
25 received user input state and from said locale identification including said local user access profile collection is further comprised of the step of:

selecting said first local access profile node in said local user access profile collection as a presentation node; and

generating said user stimulus output stream from said received user input state and from said graphical presentation content of said presentation node.

33. A method as recited in Claim 32,

5 wherein said graphics presentation content of said first local access profile node in said local user access profile collection further contains a motion video presentation content; and

wherein generating said user stimulus output stream from said received user input state and from said graphical presentation content of said presentation node is further comprised of the step of:

generating said user stimulus output stream from said received user input state and from said motion video presentation content of said presentation node.

34. A method as recited in Claim 7,

15 wherein said first local access profile node in said local user access profile collection contains a synchronized audio sequence; and

wherein generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of the step of:

20 selecting said first local access profile node in said local user access profile collection as a presentation node; and

generating said user stimulus output stream from said received user input state and from said synchronized audio sequence of said presentation node.

25 35. A method as recited in Claim 7,

wherein a first of said local access profile nodes in said local user access profile contains a link to a second of said local access profile nodes in said local access profile; and

wherein receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of the step of:

processing said received user input state based upon said first local  
5 access profile node containing said link to said second local access profile node to create a user node selection; and

wherein generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of the step of:

10 generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said user node selection.

36. A method as recited in Claim 6,  
further comprising the step of;

15 maintaining a presentation node collection comprising at least one presentation reference to an associated local access profile node of said local user access profile collection; and

wherein generating said user stimulus output stream from said received user input state and from said locale identification including said  
20 local user access profile collection is further comprised of the step of:

generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said user navigation input and based upon said user identification and based upon said presentation node collection.

25 37. A method as recited in Claim 36,

wherein said user navigation input belongs to a user navigation command collection comprising at least one member of the collection comprising a select node command, a remove node command and a reset node list command; and

30 wherein maintaining said presentation node collection comprising at least one presentation reference to said associated local access profile node

of said local user access profile collection is comprised of the step of: at least one of the collection comprised of the step of:

selecting a first of said local access profile nodes of said local user access profile collection to create a first of said presentation references of said presentation node collection as said associated local access profile node  
5 when said user navigation input includes said select node command;

removing said first presentation reference of said presentation node collection as said associated local access profile node when said user navigation input includes said remove node command; and

10 resetting at least said first presentation reference of said presentation node collection as said associated local access profile node to a reference to a predetermined first of said local access profile nodes of said local user access profile collection to create said first presentation reference of said presentation node collection as said associated local access profile node  
15 when said user navigation input includes said reset node list command.

38. A method as recited in Claim 37,

wherein maintaining said presentation node collection comprising at least one presentation reference to said associated local access profile node of said local user access profile collection is comprised of the step of:

20 selecting a first of said local access profile nodes of said local user access profile collection to create a first of said presentation references of said presentation node collection as said associated local access profile node when said user navigation input includes said select node command;

removing said first presentation reference of said presentation node  
25 collection as said associated local access profile node when said user navigation input includes said remove node command; and

resetting at least said first presentation reference of said presentation node collection as said associated local access profile node to a reference to a predetermined first of said local access profile nodes of said local user  
30 access profile collection to create said first presentation reference of said presentation node collection as said associated local access profile node when said user navigation input includes said reset node list command.

39. A method as recited in Claim 5,  
wherein said user identifying interface subsystem is comprised of a  
user presentation subsystem and a user response subsystem;  
wherein sending said user stimulus output stream to said user  
5 identifying interface subsystem is comprised of the step of:  
sending said user stimulus output stream to said user presentation  
subsystem; and  
wherein receiving said user stimulus input stream from said user  
identifying interface subsystem to create said received user input state is  
10 comprised of the step of:  
receiving a user stimulus input stream from said user response  
subsystem to create said received user input state.
40. A method as recited in Claim 39,  
wherein said user presentation subsystem is comprised of a user video  
15 subsystem;  
wherein said user stimulus output stream is comprised of a user video  
output stream; and  
wherein sending said user stimulus output stream to said user  
identifying interface subsystem is comprised of the step of:  
20 sending said user video output stream to said user video subsystem.
41. A method as recited in Claim 39,  
wherein said user response subsystem is comprised of a user tactile  
input subsystem;  
wherein receiving said user stimulus input stream from said user  
25 response subsystem to create said received user input state is comprised of  
the step of:  
receiving said user tactile input stream from said user tactile input  
subsystem to create a received user tactile input state; and  
wherein processing said received user input state to create said user  
30 identification is comprised of the step of:

processing said received user tactile input state to create a user identification state.

42. A method as recited in Claim 41,

wherein processing said received user input state to create said user  
5 identification is further comprised of the step of:

sending a financial identification confirmation request message based  
upon said user identification state to said activated financial access  
mechanism to create a sent financial identification confirmation request  
message;

10 receiving from said activated financial access mechanism a financial  
identification confirmation message responding to said sent financial  
identification confirmation request message to create a received financial  
identification confirmation message; and

processing said received financial identification confirmation message  
15 to create said user identification.

43. A method as recited in Claim 41,

wherein said user identifying interface subsystem is comprised of a  
user tactile input subsystem; and

wherein receiving said user stimulus input stream from said user  
20 identifying interface subsystem to create said received user input state is  
comprised of the step of:

receiving a user tactile input stream from said user tactile input  
subsystem to create a user tactile input state.

44. A method as recited in Claim 43,

25 wherein said user tactile input subsystem is comprised of a user touch  
keypad subsystem; and

wherein receiving said user tactile input stream from said user tactile  
input subsystem to create said user tactile input state is comprised of the step  
of:



receiving a user touch keypad input state from said user touch keypad input subsystem.

45. A method as recited in Claim 43,

wherein said user tactile input subsystem is comprised of a user  
5 handprint sensor subsystem; and

wherein receiving said user tactile input stream from said user tactile input subsystem to create said user tactile input state is comprised of the step of:

receiving a user handprint sensor input state from said user handprint  
10 sensor subsystem.

46. A method as recited in Claim 43,

wherein said user tactile input subsystem is comprised of a user retinal sensor subsystem; and

wherein receiving said user tactile input stream from said user tactile  
15 input subsystem to create said user tactile input state is comprised of the step of:

receiving a user retinal sensor input state from said user retinal sensor subsystem.

47. A method as recited in Claim 39,

wherein said user response subsystem is comprised of a user  
20 photographic sensor subsystem; and

wherein receiving said user stimulus input stream from said user response subsystem to create said user tactile input state is comprised of the step of:

receiving a user photographic sensor input state from said user  
25 photographic sensor subsystem.

48. A method as recited in Claim 39,

wherein said user response subsystem is comprised of a user acoustic sensor subsystem; and

wherein receiving said user stimulus input stream from said user response subsystem to create said user tactile input state is comprised of the step of:

receiving a user acoustic sensor input stream from said user acoustic  
5 sensor subsystem to create a user acoustic sensor input state.

49. A method as recited in Claim 4,

wherein said user identifying interface subsystem is comprised of an access card interface subsystem;

wherein receiving said user stimulus input stream from said user  
10 identifying interface subsystem to create said received user input state is comprised of the step of:

receiving an access card input stream from said access card interface subsystem to create an access card input state; and

wherein activating said financial access mechanism reference to create  
15 said activated financial access mechanism is comprised of the step of:

making a financial access mechanism reference message based upon said financial access mechanism reference and said access card input state; and

using said financial access mechanism reference message to create  
20 said activated financial access mechanism.

50. A method as recited in Claim 49,

wherein using said financial access mechanism reference message to create said activated financial access mechanism is comprised of the step of:

sending said financial access mechanism reference message to a  
25 financial access server;

receiving a financial access mechanism activation confirmation message from said financial access server; and

processing said financial access mechanism activation confirmation message to create said activated financial access mechanism.

30 51. A method as recited in Claim 49,

wherein using said financial access mechanism reference message to create said activated financial access mechanism is comprised of the step of:

sending said financial access mechanism reference message to a vending system server;

5 receiving a financial access mechanism activation confirmation message from said vending system server; and

processing said financial access mechanism activation confirmation message to create said activated financial access mechanism.

52. A method as recited in Claim 49,

10 wherein using said financial access mechanism reference message to create said activated financial access mechanism is comprised of the step of:

sending said financial access mechanism reference message to a financial access card controller;

15 receiving a financial access mechanism activation confirmation message from said financial access card controller; and

processing said financial access mechanism activation confirmation message to create said activated financial access mechanism.

53. A method as recited in Claim 3,

20 wherein said user identifying interface subsystem is comprised of an access card interface subsystem;

wherein receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is comprised of the step of:

25 receiving an access card input stream from said access card interface subsystem to create an access card input state; and

wherein processing said received user input state to create said financial access mechanism reference is comprised of the step of:

30 processing said access card input state to create said financial access mechanism reference.

54. A method as recited in Claim 53,  
wherein said user identifying interface subsystem is comprised of a  
user response subsystem;

wherein receiving said user stimulus input stream from said user  
5 identifying interface subsystem to create said received user input state is  
comprised of the step of:

receiving a user response input stream from said user response  
subsystem to create a received user response state; and

wherein processing said received user input state to create said  
10 financial access mechanism reference is comprised of the step of:

processing said access card input state and said received user  
response state to create said financial access mechanism reference.

55. A method as recited in Claim 54,

wherein generating said user stimulus output stream from said  
15 received user input state and from said locale identification is comprised of  
the step of:

generating said user stimulus output stream from said received user  
input state and from said locale identification and from said access card input  
state.

20 56. A method as recited in Claim 55,

wherein said access card input state is comprised of a financial access  
mechanism reference choice list comprised of at least one financial access  
mechanism reference choices; and

wherein processing said access card input state and said received user  
25 response state to create said financial access mechanism reference is  
comprised of the step of:

selecting said financial access mechanism reference based upon said  
financial access mechanism reference choice list of said access card input  
state and based upon said received user response state.

30 57. A method as recited in Claim 2,

wherein said locale identification includes a locale topographic database; and

wherein generating said user stimulus output stream from said received user input state and from said locale identification and based upon  
5 said user navigation input is further comprised of the step of:

generating said user stimulus output stream from locale identification including said locale topographic database based upon said user navigation input.

58. A method as recited in Claim 57,

10 wherein said locale identification includes a local merchant collection comprised of at least one local merchant entry containing at least a merchant name, a merchant location; and

wherein generating said user stimulus output stream from said locale identification including said locale topographic database based upon said user  
15 navigation input is comprised of the step of:

selecting a first of said local merchant entries of said local merchant collection based upon said user navigation input; and

generating said user stimulus output stream from said locale identification including said locale topographic database based upon said first  
20 local merchant entry of said local merchant collection.

59. A method as recited in Claim 58,

wherein generating said user stimulus output stream from said locale identification including said locale topographic database based upon said first local merchant entry of said local merchant collection is comprised of the step  
25 of:

generating a travel description to said merchant location of said first local merchant entry of said local merchant collection based upon locale identification including said locale topographic database.

60. A method as recited in Claim 1,

30 wherein said locale identification includes a default map; and

wherein generating a user stimulus output stream from said received user input state and from said locale identification is further comprised of the step of:

generating said user stimulus output stream from said received user  
5 input state and from said default map included in said locale identification.

61. A method as recited in Claim 1,

further comprising maintaining a user input history collection comprised of at least one user input history bin comprised of the step of:

reviewing said received user input state to select a first of said  
10 user input history bins of said user input history collection; and  
modifying said first user input history bin of said user input history collection based upon said received user input state.

62. A program operating system for controlling a financial access vending machine containing a computer system comprising at least one computer with  
15 accessibly coupled computer memory, a user identifying interface subsystem communicatively coupled with said computer and said computer communicatively coupled to a locale identification comprising:

a program code segment supporting receiving a user stimulus input stream from said user identifying interface subsystem to create a received  
20 user input state;

a program code segment supporting generating a user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection; and

a program code segment supporting sending said user stimulus output  
25 stream to said user identifying interface subsystem.

63. A program operating system as recited in Claim 62,

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised:

a program code segment supporting processing said received user input state to create a user navigation input; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further  
5 comprised of the step of:

a program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based  
10 upon said user navigation input.

64. A program operating system as recited in Claim 63,

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of:

15 a program code segment supporting processing said received user input state to create a financial access mechanism reference.

65. A program operating system as recited in Claim 64, further comprising a program code segment supporting activating said financial access mechanism reference to create an activated financial access mechanism.

20 66. A program operating system as recited in Claim 65,

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of the step of:

a program code segment supporting processing said received user  
25 input state to create a user identification; and

wherein said program code segment supporting activating said financial access mechanism reference to create said activated financial access mechanism is further comprised of the step of:

a program code segment supporting activating said financial access mechanism reference based upon said user identification to create an activated financial access mechanism.

66. A program operating system as recited in Claim 66,

5 wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of the step of:

10 a program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said user navigation input and based upon said user identification.

68. A program operating system as recited in Claim 66, further comprising:

15 a program code segment supporting maintaining said locale identification.

69. A program operating system as recited in Claim 68, further comprising

a program code segment supporting receiving from said activated financial access mechanism to create a received financial message; and

20 a program code segment supporting sending an outgoing financial message to said activated financial access mechanism.

70. A program operating system as recited in Claim 69,

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of:

25 a program code segment supporting processing said received user input state to create a financial transaction request message as said outgoing financial message;

wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is  
30 further comprised of:



a program code segment supporting determining a received financial transaction response message type from said received financial message; and

5 further comprising a program code segment supporting processing said received financial message to create a financial transaction response when finding said received financial transaction message type of said received financial message.

71. A program operating system as recited in Claim 70,

10 wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of:

a program code segment supporting processing said received user input state to create a merchant access request containing a merchant access identifier; and

15 further comprising a program code segment supporting opening a merchant access mechanism based upon said merchant access request containing said merchant access identifier.

72. A program operating system as recited in Claim 71, further comprising:

20 a program code segment supporting receiving a merchant offer message from said merchant access mechanism; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of:

25 a program code segment supporting inserting said merchant offer message into said user stimulus output stream.

73. A program operating system as recited in Claim 72,

30 wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

a program code segment supporting determining a confirmation financial response message type from said received financial message; and

further comprising:

5 a program code segment supporting generating a user acceptance message to said merchant access mechanism based upon said user acceptance state of said merchant offer message and based upon said confirmation financial response message type from said received financial message; and

10 a program code segment supporting sending said user acceptance message to said merchant access mechanism.

74. A program operating system as recited in Claim 73,

wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

15 a program code segment supporting determining a confirmation financial response message type from said received financial message; and

further comprising:

20 a program code segment supporting generating a user acceptance message to said merchant access mechanism based upon said user acceptance state of said merchant offer message and based upon said confirmation financial response message type from said received financial message; and

a program code segment supporting sending said user acceptance message to said merchant access mechanism.

25 75. A program operating system as recited in Claim 74, further comprising:

a program code segment supporting receiving an acknowledgement message of said user acceptance message from said merchant access mechanism to create a received acknowledgement message of said user acceptance message; and

30 a program code segment supporting creating a financial acknowledgement message based upon said received acknowledgement

message of said user acceptance message as said outgoing financial message.

76. A program operating system as recited in Claim 75,

wherein said financial access vending machine further contains a  
5 dispenser subsystem controlled by a dispenser subsystem interface  
communicatively coupled to said computer of said computer system; and

further comprising:

a program code segment supporting creating a dispenser command  
based upon said received acknowledgement message of said user  
10 acceptance message; and

a program code segment supporting operating said dispenser  
subsystem based upon said dispenser command.

76. A program operating system as recited in Claim 76,

wherein said dispenser subsystem is comprised of a certificate  
15 dispenser controlled by a certificate dispenser interface contained in said  
dispenser subsystem interface and further communicatively coupling to said  
computer of said computer system.

78. A program operating system as recited in Claim 76,

wherein said dispenser subsystem is comprised of a money dispenser  
20 controlled by a money dispenser interface contained in said dispenser  
subsystem interface and further communicatively coupling to said computer of  
said computer system.

79. A program operating system as recited in Claim 71,

wherein said financial access vending machine further contains a  
25 dispenser subsystem controlled by a dispenser subsystem interface  
communicatively coupled to said computer of said computer system; and

further comprising:

a program code segment supporting operating said dispenser system  
based upon receiving a merchant dispenser command message, further  
30 comprising:

a program code segment supporting receiving said merchant dispenser command message from said merchant access mechanism to create a received merchant dispenser command message;

a program code segment supporting creating a merchant dispenser command based upon said received merchant dispenser command message;  
5 and

a program code segment supporting operating said dispenser subsystem based upon said merchant dispenser command.

80. A program operating system as recited in Claim 79,

10 wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

a program code segment supporting determining an approval response message type of a dispenser command permission message from said  
15 received financial message; and

wherein said program code segment supporting creating a merchant dispenser command based upon said received merchant dispenser command message is further comprised of:

a program code segment supporting creating said dispenser command permission message as said outgoing financial message; and  
20

a program code segment supporting creating said merchant dispenser command based upon said received merchant dispenser command message and based upon said approval response message type of said dispenser command permission message from said received financial message.

25 81. A program operating system as recited in Claim 69,

wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

a program code segment supporting determining a local user access  
30 profile maintenance message type from said received financial message; and

wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting maintaining said local user access profile collection based upon said local user access profile maintenance message type of said received financial message.

82. A program operating system as recited in Claim 69,

wherein said financial access vending machine further contains a dispenser subsystem; and

further comprising,

a program code segment supporting creating a dispenser command; and

a program code segment supporting operating said dispenser subsystem based upon said dispenser command.

83. A program operating system as recited in Claim 82,

wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

a program code segment supporting determining a dispenser command option message type from said received financial message; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of:

a program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said dispenser command option message type of said received financial message.

84. A program operating system as recited in Claim 83,

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of the step of:

a program code segment supporting processing said received user  
5 input state to create a user dispenser option command; and

wherein said program code segment supporting creating said dispenser command is comprised of:

a program code segment supporting creating said dispenser command based upon said user dispenser option command.

10 85. A program operating system as recited in Claim 82,

wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

a program code segment supporting determining a dispenser  
15 command message type from said received financial message; and

wherein said program code segment supporting creating said dispenser command is further comprised of:

a program code segment supporting creating said dispenser command based upon said dispenser command message type from said received  
20 financial message.

86. A program operating system as recited in Claim 68,

wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting maintaining said locale  
25 identification based upon said activated financial access mechanism.

86. A program operating system as recited in Claim 86,

wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting maintaining said locale identification based upon said activated financial access mechanism and based upon said user identification.

88. A program operating system as recited in Claim 68,

5 wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting maintaining said locale identification based upon said user identification.

89. A program operating system as recited in Claim 68,

10 wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting creating a first local access profile node in said local user access profile collection included in said locale identification.

15 90. A program operating system as recited in Claim 68,

wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting deleting a first local access profile node from said local user access profile collection included in said locale  
20 identification.

91. A program operating system as recited in Claim 68,

wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting modifying a first local access  
25 profile node in said local user access profile collection included in said locale identification.

92. A program operating system as recited in Claim 68,

wherein a first of said local access profile nodes in said local user access profile collection contains a textual presentation content; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of:

5       a program code segment supporting selecting said first local access profile node in said local user access profile collection as a presentation node; and

          a program code segment supporting generating said user stimulus output stream from said received user input state and from said textual  
10       presentation content of said presentation node.

93.    A program operating system as recited in Claim 68,

          wherein a first of said local access profile nodes in said local user access profile collection contains a graphical presentation content;

          wherein said program code segment supporting generating said user  
15       stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of:

          a program code segment supporting selecting said first local access profile node in said local user access profile collection as a presentation node; and  
20       

          a program code segment supporting generating said user stimulus output stream from said received user input state and from said graphical presentation content of said presentation node.

94.    A program operating system as recited in Claim 93,

25       wherein said graphics presentation content of said first local access profile node in said local user access profile collection further contains a motion video presentation content; and

          wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said  
30       graphical presentation content of said presentation node is further comprised of:



a program code segment supporting generating said user stimulus output stream from said received user input state and from said motion video presentation content of said presentation node.

95. A program operating system as recited in Claim 68,

5 wherein said first local access profile node in said local user access profile collection contains a synchronized audio sequence; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further

10 comprised of:

a program code segment supporting selecting said first local access profile node in said local user access profile collection as a presentation node; and

15 a program code segment supporting generating said user stimulus output stream from said received user input state and from said synchronized audio sequence of said presentation node.

96. A program operating system as recited in Claim 68,

20 wherein a first of said local access profile nodes in said local user access profile contains a link to a second of said local access profile nodes in said local access profile; and

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of:

25 a program code segment supporting processing said received user input state based upon said first local access profile node containing said link to said second local access profile node to create a user node selection; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further

30 comprised of:

a program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said user node selection.

- 5 96. A program operating system as recited in Claim 66,  
further comprising,

a program code segment supporting maintaining a presentation node collection comprising at least one presentation reference to an associated local access profile node of said local user access profile collection; and

- 10 wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of:

- 15 a program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said user navigation input and based upon said user identification and based upon said presentation node collection.

98. A program operating system as recited in Claim 96,  
20 wherein said user navigation input belongs to a user navigation command collection comprising a select node command, a remove node command and a reset node list command; and

- wherein said program code segment supporting maintaining said presentation node collection comprising at least one presentation reference to  
25 said associated local access profile node of said local user access profile collection is comprised of at least one of the collection comprised of:

- a program code segment supporting selecting a first of said local access profile nodes of said local user access profile collection to create a first of said presentation references of said presentation node collection as  
30 said associated local access profile node when said user navigation input includes said select node command;

a program code segment supporting removing said first presentation reference of said presentation node collection as said associated local access profile node when said user navigation input includes said remove node command; and

5 a program code segment supporting resetting at least said first presentation reference of said presentation node collection as said associated local access profile node to a reference to a predetermined first of said local access profile nodes of said local user access profile collection to create said first presentation reference of said presentation node collection as said associated local access profile  
10 node when said user navigation input includes said reset node list command.

99. A program operating system as recited in Claim 98,

wherein said program code segment supporting maintaining said  
15 presentation node collection comprising at least one presentation reference to said associated local access profile node of said local user access profile collection is comprised of:

a program code segment supporting selecting a first of said local access profile nodes of said local user access profile collection to create a  
20 first of said presentation references of said presentation node collection as said associated local access profile node when said user navigation input includes said select node command;

a program code segment supporting removing said first presentation reference of said presentation node collection as said associated local access  
25 profile node when said user navigation input includes said remove node command; and

a program code segment supporting resetting at least said first presentation reference of said presentation node collection as said associated local access profile node to a reference to a predetermined first of said local access profile nodes of said local user access profile collection to create said  
30 first presentation reference of said presentation node collection as said

associated local access profile node when said user navigation input includes said reset node list command.

100. A program operating system as recited in Claim 66,

wherein said user identifying interface subsystem is comprised of a  
5 user presentation subsystem and a user response subsystem;

wherein said program code segment supporting sending said user stimulus output stream to said user identifying interface subsystem is comprised of:

a program code segment supporting sending said user stimulus output  
10 stream to said user presentation subsystem; and

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is comprised of:

a program code segment supporting receiving a user stimulus input  
15 stream from said user response subsystem to create said received user input state.

101. A program operating system as recited in Claim 100,

wherein said user presentation subsystem is comprised of a user video subsystem;

20 wherein said user stimulus output stream is comprised of a user video output stream; and

wherein said program code segment supporting sending said user stimulus output stream to said user identifying interface subsystem is comprised of:

25 a program code segment supporting sending said user video output stream to said user video subsystem.

102. A program operating system as recited in Claim 100,

wherein said user response subsystem is comprised of a user tactile input subsystem;

wherein said program code segment supporting receiving said user stimulus input stream from said user response subsystem to create said received user input state is comprised of:

5 a program code segment supporting receiving said user tactile input stream from said user tactile input subsystem to create a received user tactile input state; and

wherein said program code segment supporting processing said received user input state to create said user identification is comprised of:

10 a program code segment supporting processing said received user tactile input state to create a user identification state.

103. A program operating system as recited in Claim 102,

wherein said program code segment supporting processing said received user input state to create said user identification is further comprised of:

15 a program code segment supporting sending a financial identification confirmation request message based upon said user identification state to said activated financial access mechanism to create a sent financial identification confirmation request message;

20 a program code segment supporting receiving from said activated financial access mechanism a financial identification confirmation message responding to said sent financial identification confirmation request message to create a received financial identification confirmation message; and

a program code segment supporting processing said received financial identification confirmation message to create said user identification.

25 104. A program operating system as recited in Claim 102,

wherein said user identifying interface subsystem is comprised of a user tactile input subsystem; and

30 wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is comprised of:

a program code segment supporting receiving a user tactile input stream from said user tactile input subsystem to create a user tactile input state.

105. A program operating system as recited in Claim 104,

5 wherein said user tactile input subsystem is comprised of a user touch keypad subsystem; and

wherein said program code segment supporting receiving said user tactile input stream from said user tactile input subsystem to create said user tactile input state is comprised of:

10 a program code segment supporting receiving a user touch keypad input state from said user touch keypad input subsystem.

106. A program operating system as recited in Claim 104,

wherein said user tactile input subsystem is comprised of a user handprint sensor subsystem; and

15 wherein said program code segment supporting receiving said user tactile input stream from said user tactile input subsystem to create said user tactile input state is comprised of:

a program code segment supporting receiving a user handprint sensor input state from said user handprint sensor subsystem.

20 106. A program operating system as recited in Claim 104,

wherein said user tactile input subsystem is comprised of a user retinal sensor subsystem; and

25 wherein said program code segment supporting receiving said user tactile input stream from said user tactile input subsystem to create said user tactile input state is comprised of:

a program code segment supporting receiving a user retinal sensor input state from said user retinal sensor subsystem.

108. A program operating system as recited in Claim 100,

30 wherein said user response subsystem is comprised of a user photographic sensor subsystem; and

wherein said program code segment supporting receiving said user stimulus input stream from said user response subsystem to create said user tactile input state is comprised of:

- 5 a program code segment supporting receiving a user photographic sensor input state from said user photographic sensor subsystem.

109. A program operating system as recited in Claim 100,

wherein said user response subsystem is comprised of a user acoustic sensor subsystem; and

- 10 wherein said program code segment supporting receiving said user stimulus input stream from said user response subsystem to create said user tactile input state is comprised of:

a program code segment supporting receiving a user acoustic sensor input stream from said user acoustic sensor subsystem to create a user acoustic sensor input state.

- 15 110. A program operating system as recited in Claim 65,

wherein said user identifying interface subsystem is comprised of an access card interface subsystem;

- 20 wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is comprised of:

a program code segment supporting receiving an access card input stream from said access card interface subsystem to create an access card input state; and

- 25 wherein said program code segment supporting activating said financial access mechanism reference to create said activated financial access mechanism is comprised of:

a program code segment supporting making a financial access mechanism reference message based upon said financial access mechanism reference and said access card input state; and

a program code segment supporting using said financial access mechanism reference message to create said activated financial access mechanism.

111. A program operating system as recited in Claim 110,

5        wherein said program code segment supporting using said financial access mechanism reference message to create said activated financial access mechanism is comprised of:

a program code segment supporting sending said financial access mechanism reference message to a financial access server;

10        a program code segment supporting receiving a financial access mechanism activation confirmation message from said financial access server; and

15        a program code segment supporting processing said financial access mechanism activation confirmation message to create said activated financial access mechanism.

112. A program operating system as recited in Claim 110,

wherein said program code segment supporting using said financial access mechanism reference message to create said activated financial access mechanism is comprised of:

20        a program code segment supporting sending said financial access mechanism reference message to a vending system server;

a program code segment supporting receiving a financial access mechanism activation confirmation message from said vending system server; and

25        a program code segment supporting processing said financial access mechanism activation confirmation message to create said activated financial access mechanism.

113. A program operating system as recited in Claim 110,



wherein said program code segment supporting using said financial access mechanism reference message to create said activated financial access mechanism is comprised of:

5 a program code segment supporting sending said financial access mechanism reference message to a financial access card controller;

a program code segment supporting receiving a financial access mechanism activation confirmation message from said financial access card controller; and

10 a program code segment supporting processing said financial access mechanism activation confirmation message to create said activated financial access mechanism.

114. A program operating system as recited in Claim 64,

wherein said user identifying interface subsystem is comprised of an access card interface subsystem;

15 wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is comprised of:

20 a program code segment supporting receiving an access card input stream from said access card interface subsystem to create an access card input state; and

wherein said program code segment supporting processing said received user input state to create said financial access mechanism reference is comprised of:

25 a program code segment supporting processing said access card input state to create said financial access mechanism reference.

115. A program operating system as recited in Claim 114,

wherein said user identifying interface subsystem is comprised of a user response subsystem;

30 wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is comprised of:

a program code segment supporting receiving a user response input stream from said user response subsystem to create a received user response state; and

wherein said program code segment supporting processing said  
5 received user input state to create said financial access mechanism reference is comprised of:

a program code segment supporting processing said access card input state and said received user response state to create said financial access mechanism reference.

10 116. A program operating system as recited in Claim 115,

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification is comprised of:

a program code segment supporting generating said user stimulus  
15 output stream from said received user input state and from said locale identification and from said access card input state.

116. A program operating system as recited in Claim 116,

wherein said access card input state is comprised of a financial access mechanism reference choice list comprised of at least one financial access  
20 mechanism reference choices; and

wherein said program code segment supporting processing said access card input state and said received user response state to create said financial access mechanism reference is comprised of:

a program code segment supporting selecting said financial access  
25 mechanism reference based upon said financial access mechanism reference choice list of said access card input state and based upon said received user response state.

118. A program operating system as recited in Claim 63,

wherein said locale identification includes a locale topographic  
30 database; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification and based upon said user navigation input is further comprised of:

- 5        a program code segment supporting generating said user stimulus output stream from locale identification including said locale topographic database based upon said user navigation input.

119. A program operating system as recited in Claim 118,

- wherein said locale identification includes a local merchant collection  
10 comprised of at least one local merchant entry containing at least a merchant name, a merchant location; and

      wherein said program code segment supporting generating said user stimulus output stream from said locale identification including said locale topographic database based upon said user navigation input is comprised of:

- 15        a program code segment supporting selecting a first of said local merchant entries of said local merchant collection based upon said user navigation input; and

- a program code segment supporting generating said user stimulus output stream from said locale identification including said locale topographic  
20 database based upon said first local merchant entry of said local merchant collection.

120. A program operating system as recited in Claim 119,

- wherein said program code segment supporting generating said user stimulus output stream from said locale identification including said locale  
25 topographic database based upon said first local merchant entry of said local merchant collection is comprised of:

- a program code segment supporting generating a travel description to said merchant location of said first local merchant entry of said local merchant collection based upon locale identification including said locale topographic  
30 database.

121. A program operating system as recited in Claim 62,  
wherein said locale identification includes a default map; and  
wherein said program code segment supporting generating a user  
stimulus output stream from said received user input state and from said  
5 locale identification is further comprised of:

a program code segment supporting generating said user stimulus  
output stream from said received user input state and from said default map  
included in said locale identification.

122. A program operating system as recited in Claim 62,  
10 further comprising a program code segment supporting maintaining a  
user input history collection comprised of at least one user input history bin  
comprised of:

a program code segment supporting reviewing said received user input  
state to select a first of said user input history bins of said user input history  
15 collection; and

a program code segment supporting modifying said first user input  
history bin of said user input history collection based upon said received user  
input state.

123. A financial access vending machine supporting a local user access  
20 profile collection of at least one local access profile node based upon a locale  
identification comprising

a computer system further comprising at least one computer with  
accessibly coupled computer memory; a user identifying interface subsystem  
communicatively coupled with said computer; and said locale identification  
25 communicatively coupled with said computer; and

wherein said financial access vending machine is controlled by said  
computer system executing a program operating system of program code  
segments residing in said accessibly coupled computer memory of at least  
one of said computers of said computer system comprising

a program code segment supporting receiving a user stimulus input stream from said user identifying interface subsystem to create a received user input state;

5 a program code segment supporting generating a user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection; and

a program code segment supporting sending said user stimulus output stream to said user identifying interface subsystem.

124. An apparatus as recited in Claim 123,

10 wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of:

a program code segment supporting processing said received user input state to create a user navigation input; and

15 wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of:

20 a program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said user navigation input.

125. An apparatus as recited in Claim 124,

25 wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of:

a program code segment supporting processing said received user input state to create a financial access mechanism reference.

126. An apparatus as recited in Claim 125,

30 wherein said program operating system is further comprised of:

a program code segment supporting activating said financial access mechanism reference to create an activated financial access mechanism.

127. An apparatus as recited in Claim 126,

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of:

a program code segment supporting processing said received user input state to create a user identification; and

wherein said program code segment supporting activating said financial access mechanism reference to create said activated financial access mechanism is further comprised of:

a program code segment supporting activating said financial access mechanism reference based upon said user identification to create an activated financial access mechanism.

128. An apparatus as recited in Claim 127,

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of:

a program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said user navigation input and based upon said user identification.

129. An apparatus as recited in Claim 128,

wherein said program operating system is further comprised of:

a program code segment supporting maintaining said locale identification.

130. An apparatus as recited in Claim 129,

wherein said program operating system is further comprised of:

a program code segment supporting receiving from said activated financial access mechanism to create a received financial message; and

a program code segment supporting sending an outgoing financial message to said activated financial access mechanism.

5 131. An apparatus as recited in Claim 130,

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of:

10 a program code segment supporting processing said received user input state to create a financial transaction request message as said outgoing financial message;

wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

15 a program code segment supporting determining a received financial transaction response message type from said received financial message; and

wherein said program operating system is further comprised of:

20 a program code segment supporting processing said received financial message to create a financial transaction response when finding said received financial transaction message type of said received financial message.

132. An apparatus as recited in Claim 131,

25 wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of:

a program code segment supporting processing said received user input state to create a merchant access request containing a merchant access identifier; and

30 wherein said program operating system is further comprised of:

a program code segment supporting opening a merchant access mechanism based upon said merchant access request containing said merchant access identifier.

133. An apparatus as recited in Claim 132,

5 wherein said program operating system is further comprised of:

a program code segment supporting receiving a merchant offer message from said merchant access mechanism; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said  
10 locale identification including said local user access profile collection is further comprised of:

a program code segment supporting inserting said merchant offer message into said user stimulus output stream.

134. An apparatus as recited in Claim 133,

15 wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

a program code segment supporting determining a confirmation financial response message type from said received financial message; and

20 wherein said program operating system is further comprised of:

a program code segment supporting generating a user acceptance message to said merchant access mechanism based upon said user acceptance state of said merchant offer message and based upon said confirmation financial response message type from said received financial  
25 message; and

a program code segment supporting sending said user acceptance message to said merchant access mechanism.

135. An apparatus as recited in Claim 134,



wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

5 a program code segment supporting determining a confirmation financial response message type from said received financial message; and

wherein said program operating system is further comprised of:

a program code segment supporting generating a user acceptance message to said merchant access mechanism based upon said user acceptance state of said merchant offer message and based upon said  
10 confirmation financial response message type from said received financial message; and

a program code segment supporting sending said user acceptance message to said merchant access mechanism.

136. An apparatus as recited in Claim 135,

15 wherein said program operating system is further comprised of:

a program code segment supporting receiving an acknowledgement message of said user acceptance message from said merchant access mechanism to create a received acknowledgement message of said user acceptance message; and

20 a program code segment supporting creating a financial acknowledgement message based upon said received acknowledgement message of said user acceptance message as said outgoing financial message.

137. An apparatus as recited in Claim 136,

25 wherein said financial access vending machine further contains a dispenser subsystem controlled by a dispenser subsystem interface communicatively coupled to said computer of said computer system; and

wherein said program operating system is further comprised of:

a program code segment supporting creating a dispenser command  
30 based upon said received acknowledgement message of said user acceptance message; and

a program code segment supporting operating said dispenser subsystem based upon said dispenser command.

138. An apparatus as recited in Claim 137,

wherein said dispenser subsystem is comprised of a certificate  
5 dispenser controlled by a certificate dispenser interface contained in said  
dispenser subsystem interface and further communicatively coupling to said  
computer of said computer system.

139. An apparatus as recited in Claim 137,

wherein said dispenser subsystem is comprised of a money dispenser  
10 controlled by a money dispenser interface contained in said dispenser  
subsystem interface and further communicatively coupling to said computer of  
said computer system.

140. An apparatus as recited in Claim 132,

wherein said financial access vending machine further contains a  
15 dispenser subsystem controlled by a dispenser subsystem interface  
communicatively coupled to said computer of said computer system; and

wherein said program operating system is further comprised of:

a program code segment supporting operating said dispenser system  
based upon receiving a merchant dispenser command message, further  
20 comprising:

a program code segment supporting receiving said merchant dispenser  
command message from said merchant access mechanism to create a  
received merchant dispenser command message;

a program code segment supporting creating a merchant dispenser  
25 command based upon said received merchant dispenser command message;  
and

a program code segment supporting operating said dispenser  
subsystem based upon said merchant dispenser command.

141. An apparatus as recited in Claim 140,

wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

5 a program code segment supporting determining an approval response message type of a dispenser command permission message from said received financial message; and

wherein said program code segment supporting creating a merchant dispenser command based upon said received merchant dispenser command message is further comprised of:

10 a program code segment supporting creating said dispenser command permission message as said outgoing financial message; and

a program code segment supporting creating said merchant dispenser command based upon said received merchant dispenser command message and based upon said approval response message type of said dispenser  
15 command permission message from said received financial message.

142. An apparatus as recited in Claim 130,

wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

20 a program code segment supporting determining a local user access profile maintenance message type from said received financial message; and

wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting maintaining said local user access  
25 profile collection based upon said local user access profile maintenance message type of said received financial message.

143. An apparatus as recited in Claim 130,

wherein said financial access vending machine further contains a dispenser subsystem; and

30 wherein said program operating system is further comprised of:

a program code segment supporting creating a dispenser command;  
and

a program code segment supporting operating said dispenser subsystem based upon said dispenser command.

5 144. An apparatus as recited in Claim 143,

wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

a program code segment supporting determining a dispenser  
10 command option message type from said received financial message; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of:

15 a program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said dispenser command option message type of said received financial message.

20 145. An apparatus as recited in Claim 144,

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of:

a program code segment supporting processing said received user  
25 input state to create a user dispenser option command; and

wherein said program code segment supporting creating said dispenser command is comprised of:

a program code segment supporting creating said dispenser command based upon said user dispenser option command.

30 146. An apparatus as recited in Claim 143,

wherein said program code segment supporting receiving from said activated financial access mechanism said received financial message is further comprised of:

a program code segment supporting determining a dispenser  
5 command message type from said received financial message; and

wherein said program code segment supporting creating said dispenser command is further comprised of:

a program code segment supporting creating said dispenser command  
based upon said dispenser command message type from said received  
10 financial message.

147. An apparatus as recited in Claim 129,

wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting maintaining said locale  
15 identification based upon said activated financial access mechanism.

148. An apparatus as recited in Claim 137,

wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting maintaining said locale  
20 identification based upon said activated financial access mechanism and  
based upon said user identification.

149. An apparatus as recited in Claim 129,

wherein said program code segment supporting maintaining said locale identification is further comprised of:

25 a program code segment supporting maintaining said locale  
identification based upon said user identification.

150. An apparatus as recited in Claim 129,

wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting creating a first local access profile node in said local user access profile collection included in said locale identification.

151. An apparatus as recited in Claim 129,

5 wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting deleting a first local access profile node from said local user access profile collection included in said locale identification.

10 152. An apparatus as recited in Claim 129,

wherein said program code segment supporting maintaining said locale identification is further comprised of:

a program code segment supporting modifying a first local access profile node in said local user access profile collection included in said locale  
15 identification.

153. An apparatus as recited in Claim 129,

wherein a first of said local access profile nodes in said local user access profile collection contains a textual presentation content; and

wherein said program code segment supporting generating said user  
20 stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further comprised of:

a program code segment supporting selecting said first local access profile node in said local user access profile collection as a presentation node;  
25 and

a program code segment supporting generating said user stimulus output stream from said received user input state and from said textual presentation content of said presentation node.

154. An apparatus as recited in Claim 129,

wherein a first of said local access profile nodes in said local user access profile collection contains a graphical presentation content;

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further  
5 comprised of:

a program code segment supporting selecting said first local access profile node in said local user access profile collection as a presentation node; and

10 a program code segment supporting generating said user stimulus output stream from said received user input state and from said graphical presentation content of said presentation node.

155. An apparatus as recited in Claim 154,

wherein said graphics presentation content of said first local access profile node in said local user access profile collection further contains a  
15 motion video presentation content; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said graphical presentation content of said presentation node is further comprised  
20 of:

a program code segment supporting generating said user stimulus output stream from said received user input state and from said motion video presentation content of said presentation node.

156. An apparatus as recited in Claim 129,

25 wherein said first local access profile node in said local user access profile collection contains a synchronized audio sequence; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further  
30 comprised of:

a program code segment supporting selecting said first local access profile node in said local user access profile collection as a presentation node; and

5 a program code segment supporting generating said user stimulus output stream from said received user input state and from said synchronized audio sequence of said presentation node.

157. An apparatus as recited in Claim 129,

wherein a first of said local access profile nodes in said local user access profile contains a link to a second of said local access profile nodes in  
10 said local access profile; and

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is further comprised of:

a program code segment supporting processing said received user  
15 input state based upon said first local access profile node containing said link to said second local access profile node to create a user node selection; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further  
20 comprised of:

a program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based upon said user node selection.

25 158. An apparatus as recited in Claim 128,

wherein said computer system further comprising

a presentation node collection comprising at least one presentation reference to an associated local access profile node of said local user access profile collection communicatively coupled to said computer; and

30 wherein said program operating system further comprising,



a program code segment supporting maintaining said presentation node collection; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection is further  
5 comprised of:

a program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification including said local user access profile collection and based  
10 upon said user navigation input and based upon said user identification and based upon said presentation node collection.

159. An apparatus as recited in Claim 158,

wherein said user navigation input belongs to a user navigation command collection comprising a select node command, a remove node  
15 command and a reset node list command; and

wherein said program code segment supporting maintaining said presentation node collection comprising at least one presentation reference to said associated local access profile node of said local user access profile collection is comprised of at least one of the collection comprised of:

20 a program code segment supporting selecting a first of said local access profile nodes of said local user access profile collection to create a first of said presentation references of said presentation node collection as said associated local access profile node when said user navigation input includes said select node command;

25 a program code segment supporting removing said first presentation reference of said presentation node collection as said associated local access profile node when said user navigation input includes said remove node command; and

a program code segment supporting resetting at least said first  
30 presentation reference of said presentation node collection as said associated local access profile node to a reference to a predetermined first of said local access profile nodes of said local user access profile collection to create said

first presentation reference of said presentation node collection as said associated local access profile node when said user navigation input includes said reset node list command.

160. An apparatus as recited in Claim 159,

5        wherein said program code segment supporting maintaining said presentation node collection comprising at least one presentation reference to said associated local access profile node of said local user access profile collection is comprised of:

10        a program code segment supporting selecting a first of said local access profile nodes of said local user access profile collection to create a first of said presentation references of said presentation node collection as said associated local access profile node when said user navigation input includes said select node command;

15        a program code segment supporting removing said first presentation reference of said presentation node collection as said associated local access profile node when said user navigation input includes said remove node command; and

20        a program code segment supporting resetting at least said first presentation reference of said presentation node collection as said associated local access profile node to a reference to a predetermined first of said local access profile nodes of said local user access profile collection to create said first presentation reference of said presentation node collection as said associated local access profile node when said user navigation input includes said reset node list command.

25        161. An apparatus as recited in Claim 127,

      wherein said user identifying interface subsystem is comprised of a user presentation subsystem and a user response subsystem;

30        wherein said program code segment supporting sending said user stimulus output stream to said user identifying interface subsystem is comprised of:

a program code segment supporting sending said user stimulus output stream to said user presentation subsystem; and

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create  
5 said received user input state is comprised of:

a program code segment supporting receiving a user stimulus input stream from said user response subsystem to create said received user input state.

162. An apparatus as recited in Claim 161,

10 wherein said user presentation subsystem is comprised of a user video subsystem;

wherein said user stimulus output stream is comprised of a user video output stream; and

wherein said program code segment supporting sending said user stimulus output stream to said user identifying interface subsystem is  
15 comprised of:

a program code segment supporting sending said user video output stream to said user video subsystem.

163. An apparatus as recited in Claim 161,

20 wherein said user response subsystem is comprised of a user tactile input subsystem;

wherein said program code segment supporting receiving said user stimulus input stream from said user response subsystem to create said received user input state is comprised of:

25 a program code segment supporting receiving said user tactile input stream from said user tactile input subsystem to create a received user tactile input state; and

wherein said program code segment supporting processing said received user input state to create said user identification is comprised of:

30 a program code segment supporting processing said received user tactile input state to create a user identification state.

164. An apparatus as recited in Claim 163,  
wherein said program code segment supporting processing said  
received user input state to create said user identification is further comprised  
of:

5 a program code segment supporting sending a financial identification  
confirmation request message based upon said user identification state to  
said activated financial access mechanism to create a sent financial  
identification confirmation request message;

a program code segment supporting receiving from said activated  
10 financial access mechanism a financial identification confirmation message  
responding to said sent financial identification confirmation request message  
to create a received financial identification confirmation message; and

a program code segment supporting processing said received financial  
identification confirmation message to create said user identification.

15 165. An apparatus as recited in Claim 163,  
wherein said user identifying interface subsystem is comprised of a  
user tactile input subsystem; and

wherein said program code segment supporting receiving said user  
stimulus input stream from said user identifying interface subsystem to create  
20 said received user input state is comprised of:

a program code segment supporting receiving a user tactile input  
stream from said user tactile input subsystem to create a user tactile input  
state.

166. An apparatus as recited in Claim 165,

25 wherein said user tactile input subsystem is comprised of a user touch  
keypad subsystem; and

wherein said program code segment supporting receiving said user  
tactile input stream from said user tactile input subsystem to create said user  
tactile input state is comprised of:

30 a program code segment supporting receiving a user touch keypad  
input state from said user touch keypad input subsystem.

167. An apparatus as recited in Claim 165,  
wherein said user tactile input subsystem is comprised of a user  
handprint sensor subsystem; and

wherein said program code segment supporting receiving said user  
5 tactile input stream from said user tactile input subsystem to create said user  
tactile input state is comprised of:

a program code segment supporting receiving a user handprint sensor  
input state from said user handprint sensor subsystem.

168. An apparatus as recited in Claim 165,

10 wherein said user tactile input subsystem is comprised of a user retinal  
sensor subsystem; and

wherein said program code segment supporting receiving said user  
tactile input stream from said user tactile input subsystem to create said user  
tactile input state is comprised of:

15 a program code segment supporting receiving a user retinal sensor  
input state from said user retinal sensor subsystem.

169. An apparatus as recited in Claim 161,

wherein said user response subsystem is comprised of a user  
photographic sensor subsystem; and

20 wherein said program code segment supporting receiving said user  
stimulus input stream from said user response subsystem to create said user  
tactile input state is comprised of:

a program code segment supporting receiving a user photographic  
sensor input state from said user photographic sensor subsystem.

25 170. An apparatus as recited in Claim 161,

wherein said user response subsystem is comprised of a user acoustic  
sensor subsystem; and

wherein said program code segment supporting receiving said user  
stimulus input stream from said user response subsystem to create said user  
30 tactile input state is comprised of:

a program code segment supporting receiving a user acoustic sensor input stream from said user acoustic sensor subsystem to create a user acoustic sensor input state.

171. An apparatus as recited in Claim 126,

5 wherein said user identifying interface subsystem is comprised of an access card interface subsystem;

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is comprised of:

10 a program code segment supporting receiving an access card input stream from said access card interface subsystem to create an access card input state; and

wherein said program code segment supporting activating said financial access mechanism reference to create said activated financial access mechanism is comprised of:

a program code segment supporting making a financial access mechanism reference message based upon said financial access mechanism reference and said access card input state; and

20 a program code segment supporting using said financial access mechanism reference message to create said activated financial access mechanism.

172. An apparatus as recited in Claim 171,

25 wherein said program code segment supporting using said financial access mechanism reference message to create said activated financial access mechanism is comprised of:

a program code segment supporting sending said financial access mechanism reference message to a financial access server;

30 a program code segment supporting receiving a financial access mechanism activation confirmation message from said financial access server; and

a program code segment supporting processing said financial access mechanism activation confirmation message to create said activated financial access mechanism.

173. An apparatus as recited in Claim 171,

5 wherein said program code segment supporting using said financial access mechanism reference message to create said activated financial access mechanism is comprised of:

a program code segment supporting sending said financial access mechanism reference message to a vending system server;

10 a program code segment supporting receiving a financial access mechanism activation confirmation message from said vending system server; and

a program code segment supporting processing said financial access mechanism activation confirmation message to create said activated financial  
15 access mechanism.

174. An apparatus as recited in Claim 171,

wherein said program code segment supporting using said financial access mechanism reference message to create said activated financial access mechanism is comprised of:

20 a program code segment supporting sending said financial access mechanism reference message to a financial access card controller;

a program code segment supporting receiving a financial access mechanism activation confirmation message from said financial access card controller; and

25 a program code segment supporting processing said financial access mechanism activation confirmation message to create said activated financial access mechanism.

175. An apparatus as recited in Claim 125,

30 wherein said user identifying interface subsystem is comprised of an access card interface subsystem;

wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is comprised of:

5 a program code segment supporting receiving an access card input stream from said access card interface subsystem to create an access card input state; and

wherein said program code segment supporting processing said received user input state to create said financial access mechanism reference is comprised of:

10 a program code segment supporting processing said access card input state to create said financial access mechanism reference.

176. An apparatus as recited in Claim 175,

wherein said user identifying interface subsystem is comprised of a user response subsystem;

15 wherein said program code segment supporting receiving said user stimulus input stream from said user identifying interface subsystem to create said received user input state is comprised of:

a program code segment supporting receiving a user response input stream from said user response subsystem to create a received user response state; and

20 wherein said program code segment supporting processing said received user input state to create said financial access mechanism reference is comprised of:

a program code segment supporting processing said access card input state and said received user response state to create said financial access mechanism reference.

177. An apparatus as recited in Claim 176,

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification is comprised of:



a program code segment supporting generating said user stimulus output stream from said received user input state and from said locale identification and from said access card input state.

178. An apparatus as recited in Claim 177,

5 wherein said access card input state is comprised of a financial access mechanism reference choice list comprised of at least one financial access mechanism reference choice; and

wherein said program code segment supporting processing said access card input state and said received user response state to create said  
10 financial access mechanism reference is comprised of:

a program code segment supporting selecting said financial access mechanism reference based upon said financial access mechanism reference choice list of said access card input state and based upon said received user response state.

15 179. An apparatus as recited in Claim 124,

wherein said locale identification includes a locale topographic database; and

wherein said program code segment supporting generating said user stimulus output stream from said received user input state and from said  
20 locale identification and based upon said user navigation input is further comprised of:

a program code segment supporting generating said user stimulus output stream from locale identification including said locale topographic database based upon said user navigation input.

25 180. An apparatus as recited in Claim 179,

wherein said locale identification includes a local merchant collection comprised of at least one local merchant entry containing at least a merchant name, a merchant location; and

wherein said program code segment supporting generating said user stimulus output stream from said locale identification including said locale topographic database based upon said user navigation input is comprised of:

5 a program code segment supporting selecting a first of said local merchant entries of said local merchant collection based upon said user navigation input; and

a program code segment supporting generating said user stimulus output stream from said locale identification including said locale topographic database based upon said first local merchant entry of said local merchant  
10 collection.

181. An apparatus as recited in Claim 180,

wherein said program code segment supporting generating said user stimulus output stream from said locale identification including said locale topographic database based upon said first local merchant entry of said local  
15 merchant collection is comprised of:

a program code segment supporting generating a travel description to said merchant location of said first local merchant entry of said local merchant collection based upon locale identification including said locale topographic database.

20 182. An apparatus as recited in Claim 123,

wherein said locale identification includes a default map; and

wherein said program code segment supporting generating a user stimulus output stream from said received user input state and from said locale identification is further comprised of:

25 a program code segment supporting generating said user stimulus output stream from said received user input state and from said default map included in said locale identification.

183. An apparatus as recited in Claim 123,

further comprising a program code segment supporting maintaining a user input history collection comprised of at least one user input history bin comprised of:

5 a program code segment supporting reviewing said received user input state to select a first of said user input history bins of said user input history collection; and

a program code segment supporting modifying said first user input history bin of said user input history collection based upon said received user input state.

10 184. An apparatus as recited in Claim 123,

wherein said locale identification resides in said accessibly coupled memory of said computer of said computer system.

185. A financial access vending network supporting financial access vending machines comprised of:

15 a financial access vending network collection comprising at least one financial access vending machine computer with accessibly coupled computer memory as recited in Claim 123; and

a vending system server computer communicatively coupled to each of said financial access vending machine computers belonging to said financial access network collection and accessibly coupled to a computer memory; and

20 wherein a program operating system residing in said accessibly coupled computer memory of said vending system server computer is comprised of:

a program code segment supporting communication with each of said financial access vending machine computers belonging to said financial access network collection; and

25 wherein each program operating system residing in said accessibly coupled computer memory of each of said financial access vending machine computers belonging to said financial access network collection is further comprised of:

30

a program code segment supporting communication with said vending system server computer.

186. A financial access vending network supporting financial access vending machines as recited in Claim 185,

5        wherein each program operating system residing in said accessibly coupled computer memory of each of said financial access vending machine computers belonging to said financial access network collection is further comprised of:

10        a program code segment supporting maintaining said locale identification further comprising

      a program code segment support maintaining said locale identification based upon receiving a locale identification maintenance message from said vending system server;

15        wherein said program operating system residing in said accessibly coupled computer memory of said vending system server computer is further comprised of:

20        a program code segment directing each of said financial access vending machine computers belonging to said financial access network collection in maintaining said locale identification of said financial access vending machine computer comprised of:

      a program code segment creating said locale identification maintenance message for said financial access vending machine computer; and

25        a program code segment sending said locale identification maintenance message to said financial access vending machine computer.

187. A method of contracting between an identified user operating a financial access vending machine communicatively coupled to a financial access mechanism and said user financial access vending machine communicatively coupled to a merchant access mechanism comprising

said identified user operated financial access vending machine receiving an offer message sent by said merchant access mechanism to create a received offer message;

5       said user financial access vending machine sending said financial access mechanism a financial acceptance request message based upon said received offer message and based upon an acceptance action of said identified user recognized by said financial access vending machine;

      said user financial access vending machine receiving a financial message from said financial access mechanism a received acceptance  
10   response financial message based upon said received offer message; and

      said merchant access mechanism receiving an offer acceptance message based upon said received acceptance response financial message to create a contract.

188. A method of contracting as recited in Claim 187,

15       wherein said identified user operated financial access vending machine is communicatively coupled to a merchant access mechanism is further comprised of the step of:

      said identified user operated financial access vending machine is communicatively coupled via said financial access mechanism to said  
20   merchant access mechanism.

189. A method of contracting as recited in Claim 187,

      wherein said identified user operated financial access vending machine is communicatively coupled to a merchant access mechanism is further comprised of the step of:

25       said user identified user operated financial access vending machine is communicatively coupled via a vending system server to said financial access mechanism; and

      wherein said identified user operated financial access vending machine is communicatively coupled to said merchant access mechanism is further  
30   comprised of the step of:

said identified user operated financial access vending machine communicatively coupled via said vending system server to said financial access mechanism.

190. A method of contracting as recited in Claim 187,

5 wherein said merchant access mechanism receiving said offer acceptance message based upon said received acceptance response financial message based to create a contract is comprised of the step of:

said merchant access mechanism sending an offer acceptance acknowledgement message based upon said received offer acceptance  
10 message to said financial access vending machine.

191. A method of contracting as recited in Claim 190,

further comprising the step of said financial access vending machine receiving said offer acceptance acknowledgement message to create a received offer acceptance acknowledgement message.

15 192. A method of contracting as recited in Claim 191,

wherein said financial access vending machine receiving said offer acceptance acknowledgement message to create a received offer acceptance acknowledgement message is comprised of the step of:

displaying said received offer acceptance acknowledgement message  
20 to create a confirmed contract message to said identified user.

193. A program operating system supporting contracting between an identified user operating a financial access vending machine computer communicatively coupled to a financial access mechanism computer and said identified user operated financial access vending machine computer  
25 communicatively coupled to a merchant access mechanism computer of comprising:

a program code segment supporting said identified user operated financial access vending machine computer receiving an offer message sent by said merchant access mechanism computer to create a received offer  
30 message;

a program code segment supporting said user financial access vending machine computer sending said financial access mechanism computer a financial acceptance request message based upon said received offer message and based upon an acceptance action of said identified user  
5 recognized by said financial access vending machine computer;

a program code segment supporting said user financial access vending machine computer receiving a financial message from said financial access mechanism computer a received acceptance response financial message based upon said received offer message; and

10 a program code segment supporting said merchant access mechanism computer receiving an offer acceptance message based upon said received acceptance response financial message to create a contract; and

wherein said program code segments reside on at least one of the collection comprising:

15 computer readable memory accessibly coupled to said identified user operated financial access machine computer;

computer readable memory accessibly coupled to said financial access mechanism computer; and

20 computer readable memory accessibly coupled to said merchant access mechanism computer.

194. A program operating system supporting contracting as recited in Claim 193,

wherein said identified user operated financial access vending machine computer is communicatively coupled to a merchant access mechanism  
25 computer is further comprised of:

said identified user operated financial access vending machine computer is communicatively coupled via said financial access mechanism computer to said merchant access mechanism computer.

195. A program operating system supporting contracting as recited in Claim  
30 193,

wherein said identified user operated financial access vending machine computer is communicatively coupled to a merchant access mechanism computer is further comprised of:

5       said user identified user operated financial access vending machine computer is communicatively coupled via a vending system server computer to said financial access mechanism computer ; and

wherein said identified user operated financial access vending machine computer is communicatively coupled to said merchant access mechanism computer is further comprised of:

10       said identified user operated financial access vending machine computer communicatively coupled via said vending system server computer to said financial access mechanism computer.

196. A program operating system supporting contracting as recited in Claim 193,

15       wherein said program code segment supporting said merchant access mechanism computer receiving said offer acceptance message based upon said received acceptance response financial message based to create a contract is comprised of the step of:

20       a program code segment supporting said merchant access mechanism computer sending an offer acceptance acknowledgement message based upon said received offer acceptance message to said financial access vending machine computer.

197. A program operating system supporting contracting as recited in Claim 196,

25       further comprising a program code segment supporting said financial access vending machine computer receiving said offer acceptance acknowledgement message to create a received offer acceptance acknowledgement message.

30       198. A program operating system supporting contracting as recited in Claim 197,



wherein said program code segment supporting said financial access vending machine computer receiving said offer acceptance acknowledgement message to create a received offer acceptance acknowledgement message is comprised of:

- 5       a program code segment supporting displaying said received offer acceptance acknowledgement message to create a confirmed contract message to said identified user.

199. A computer system supporting contracting between a user financial access machine communicatively coupled to a financial access mechanism  
10 and said user financial access machine communicatively coupled to a merchant access mechanism comprising

an identified user operating a financial access vending machine computer accessibly coupled to a first computer memory and communicatively coupled to a financial access mechanism computer;

- 15       said financial access mechanism computer accessibly coupled to a second computer memory;

said user financial access vending machine computer communicatively coupled to a merchant access mechanism computer; and

- 20       said merchant access mechanism computer accessibly coupled to a second computer memory; and

said program operating system further comprising:

- 25       a program code segment supporting said identified user operated financial access vending machine computer receiving an offer message sent by said merchant access mechanism computer to create a received offer message;   a program code segment supporting said user financial access vending machine computer sending said financial access mechanism computer a financial acceptance request message based upon said received offer message and based upon an acceptance action of said identified user recognized by said financial access vending machine computer;

- 30       a program code segment supporting said user financial access vending machine computer receiving a financial message from said financial access

mechanism computer a received acceptance response financial message based upon said received offer message; and

a program code segment supporting said merchant access mechanism computer receiving an offer acceptance message based upon said received acceptance response financial message to create a contract; and

wherein said program code segments reside on at least one of the collection comprising:

computer readable memory accessibly coupled to said identified user operated financial access machine computer;

computer readable memory accessibly coupled to said financial access mechanism computer; and

computer readable memory accessibly coupled to said merchant access mechanism computer.

200. A computer system supporting contracting as recited in Claim 199,

wherein said identified user operated financial access vending machine computer is communicatively coupled to a merchant access mechanism computer is further comprised of:

said identified user operated financial access vending machine computer is communicatively coupled via said financial access mechanism computer to said merchant access mechanism computer.

201. A computer system supporting contracting as recited in Claim 199,

wherein said identified user operated financial access vending machine computer is communicatively coupled to a merchant access mechanism computer is further comprised of:

said user identified user operated financial access vending machine computer is communicatively coupled via a vending system server computer to said financial access mechanism computer ; and

wherein said identified user operated financial access vending machine computer is communicatively coupled to said merchant access mechanism computer is further comprised of:

said identified user operated financial access vending machine computer communicatively coupled via said vending system server computer to said financial access mechanism computer.

202. A computer system supporting contracting as recited in Claim 199,

5 wherein said program code segment supporting said merchant access mechanism computer receiving said offer acceptance message based upon said received acceptance response financial message based and upon said received offer message to create a contract is comprised of:

10 a program code segment supporting said merchant access mechanism computer sending an offer acceptance acknowledgement message based upon said received offer acceptance message to said financial access vending machine computer.

203. A computer system supporting contracting as recited in Claim 202,

wherein said program operating system is further comprised of:

15 a program code segment supporting said financial access vending machine computer receiving said offer acceptance acknowledgement message to create a received offer acceptance acknowledgement message.

204. A program operating system supporting contracting as recited in Claim 201,

20 wherein said program code segment supporting said financial access vending machine computer receiving said offer acceptance acknowledgement message to create a received offer acceptance acknowledgement message is comprised of:

25 a program code segment supporting displaying said received offer acceptance acknowledgement message to create a confirmed contract message to said identified user.

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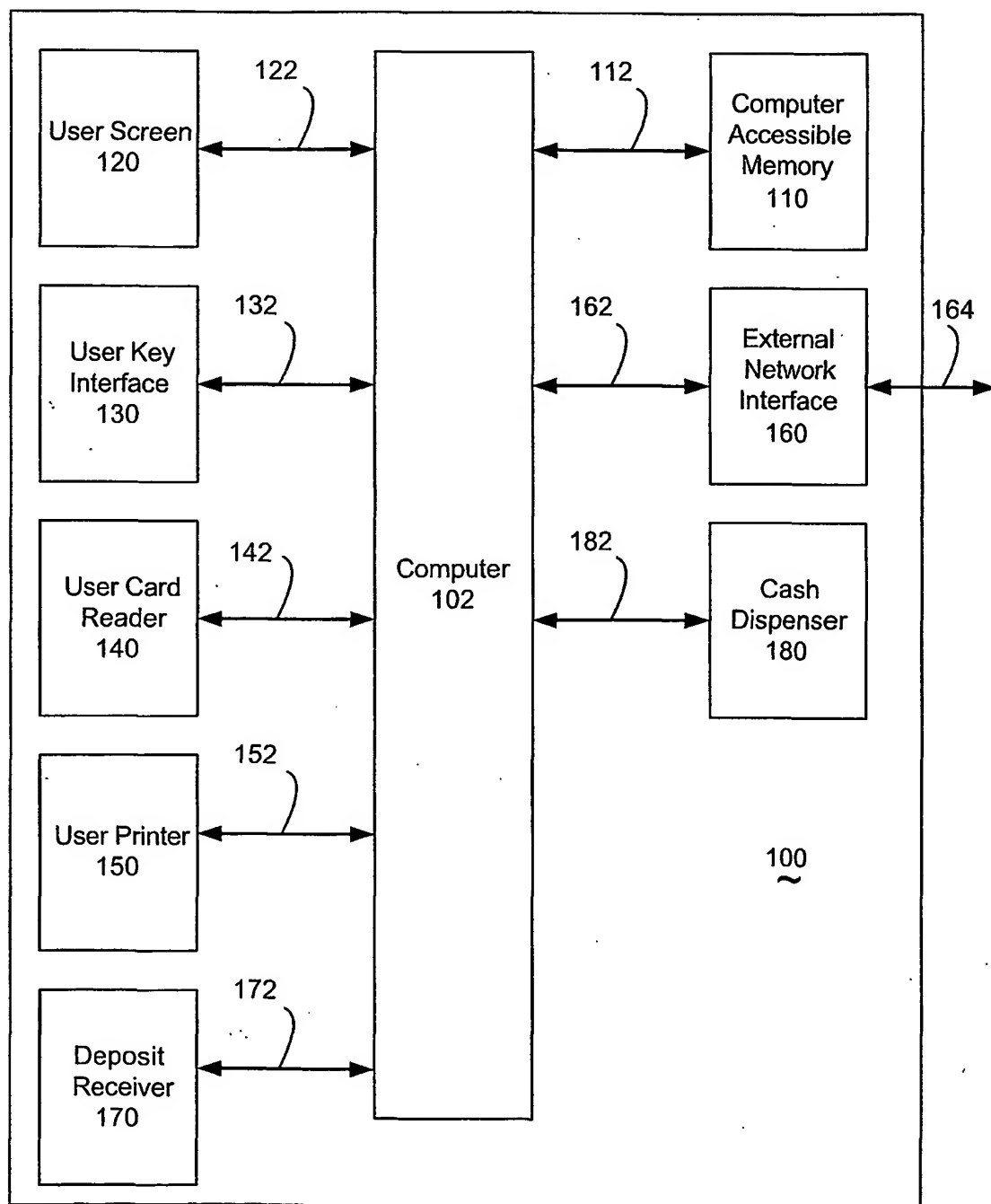


Fig. 1  
Prior Art

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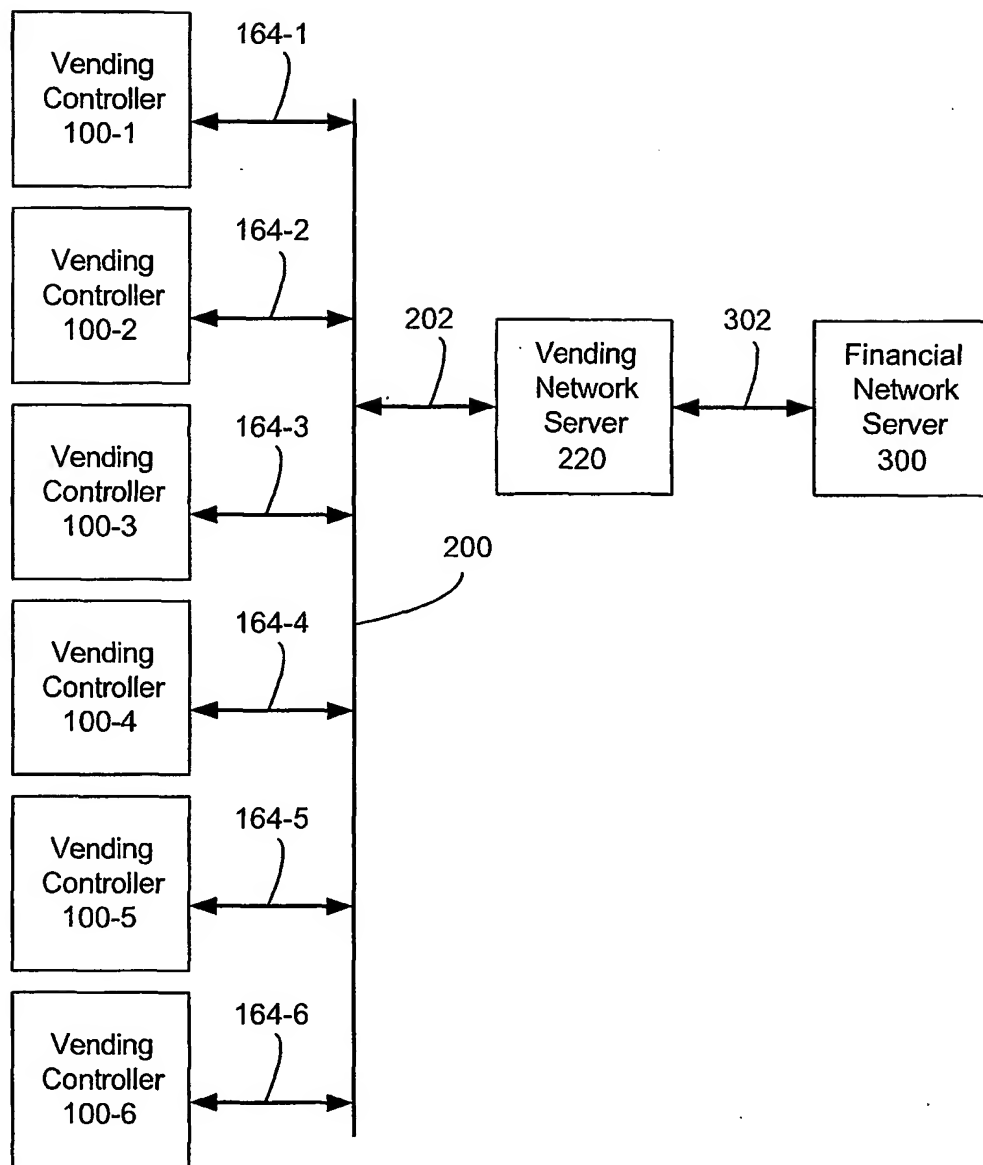


Fig. 2  
Prior Art

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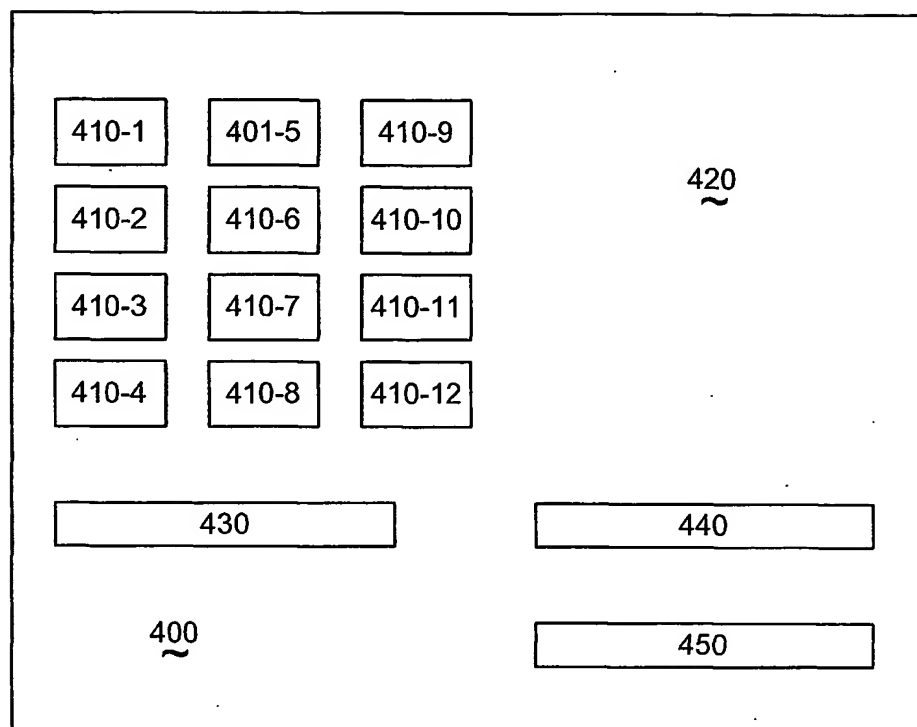


Fig. 3  
Prior Art

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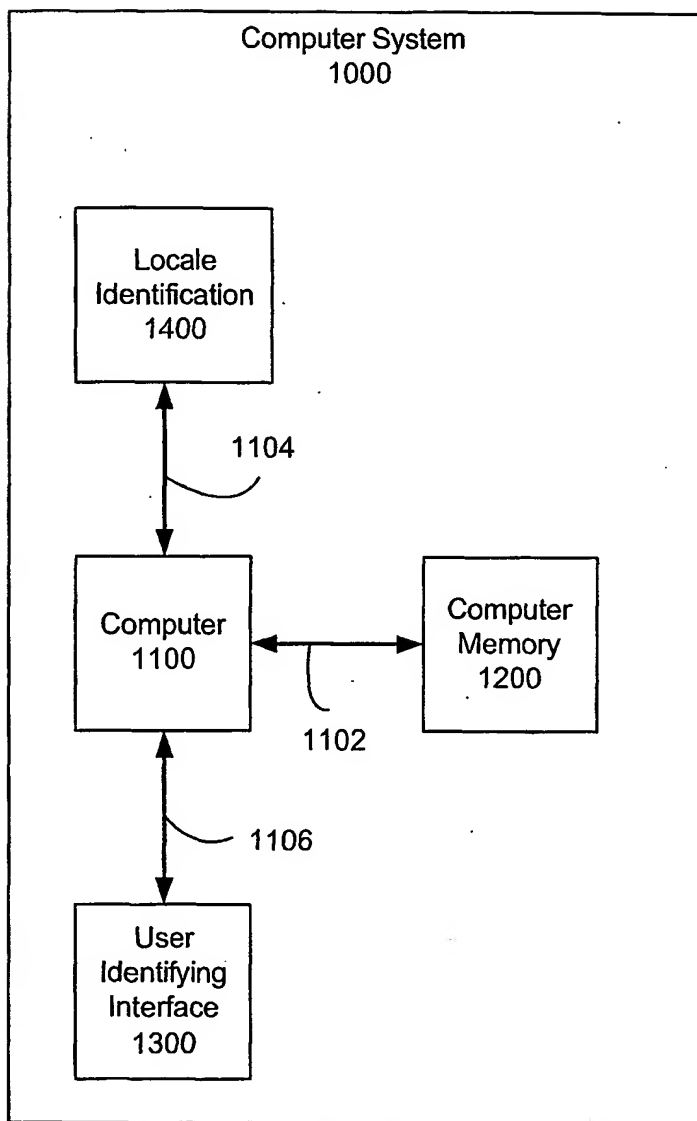


Fig. 4

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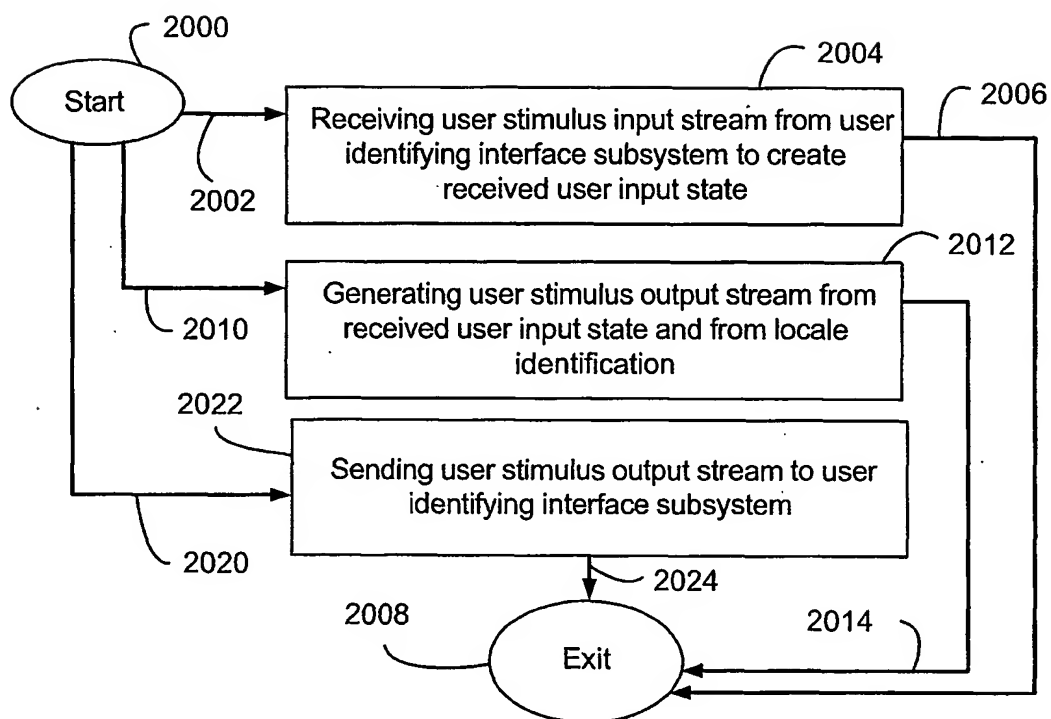


Fig. 5



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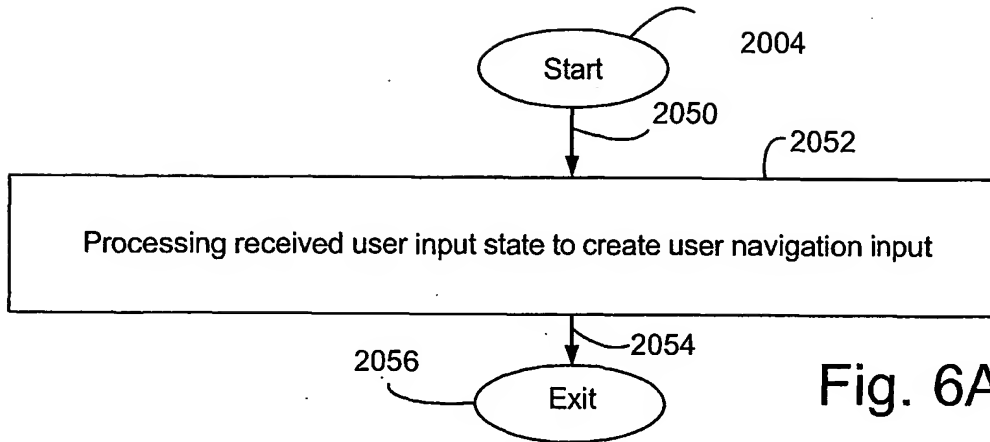


Fig. 6A

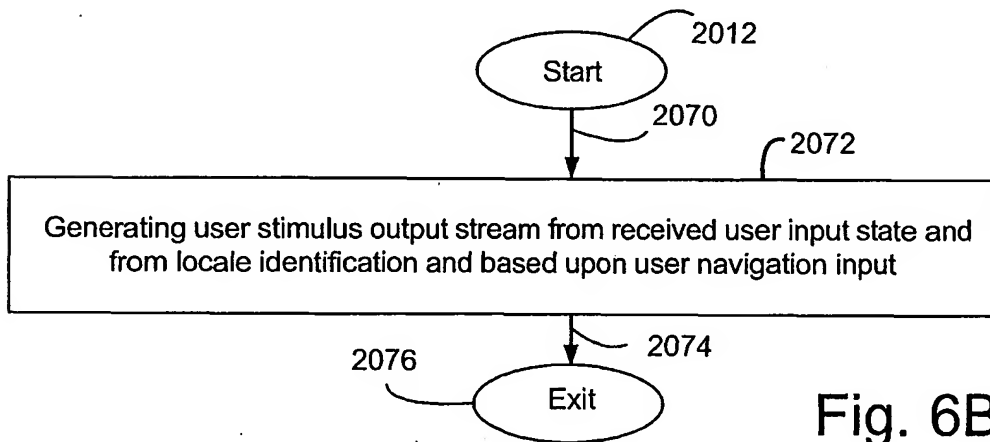


Fig. 6B

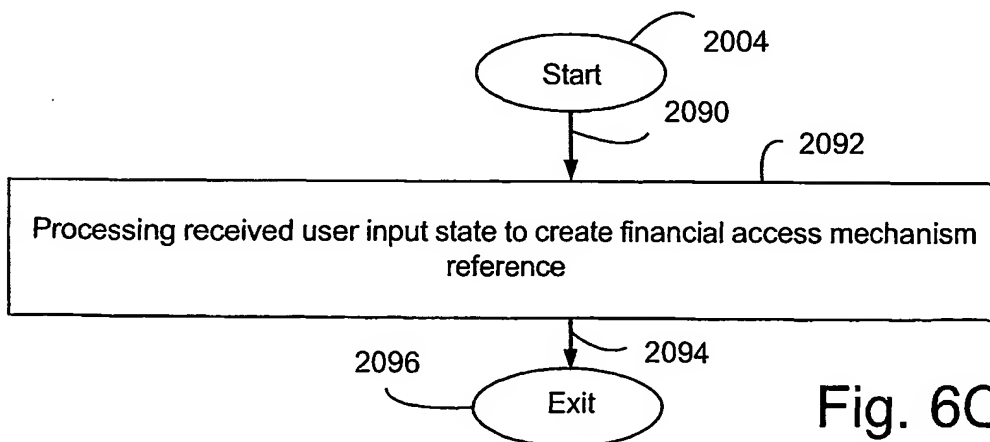
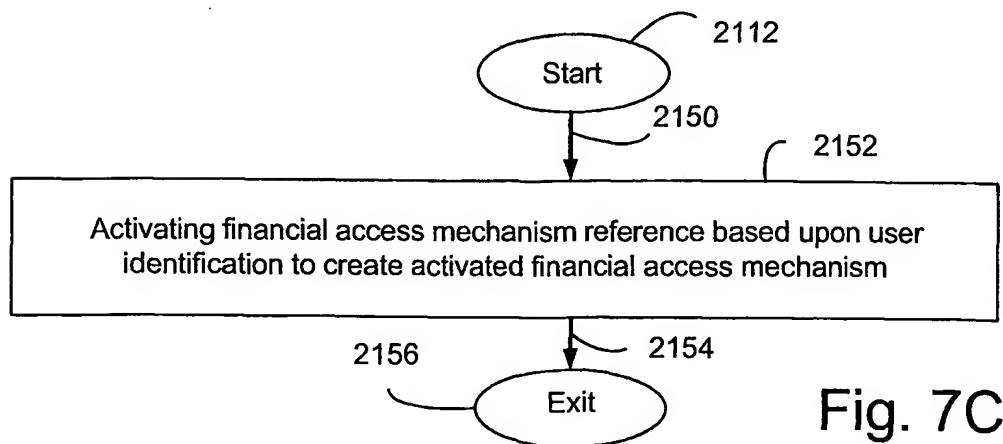
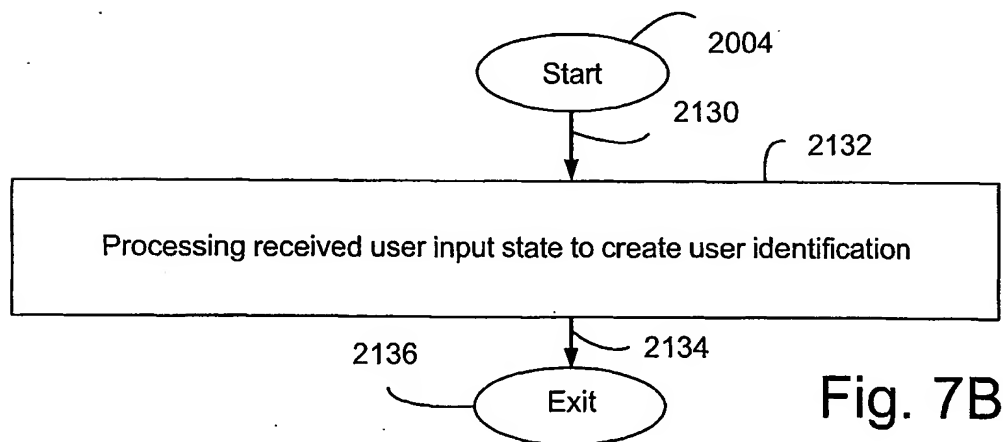
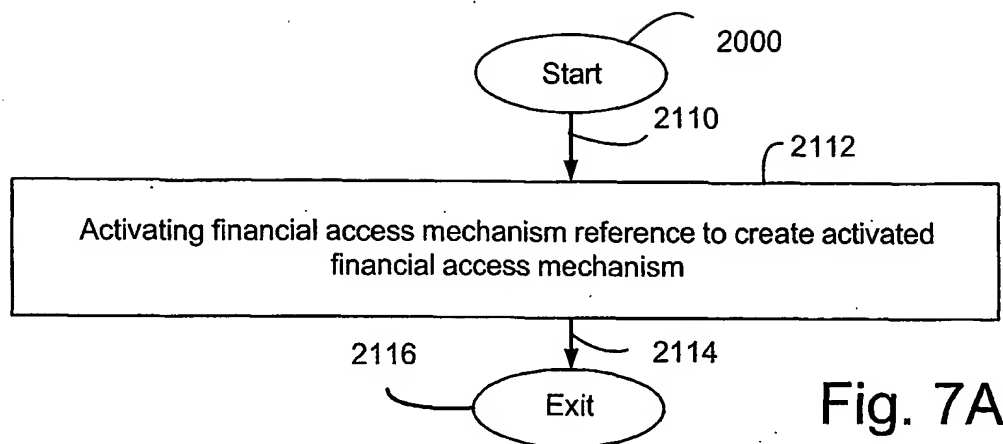


Fig. 6C

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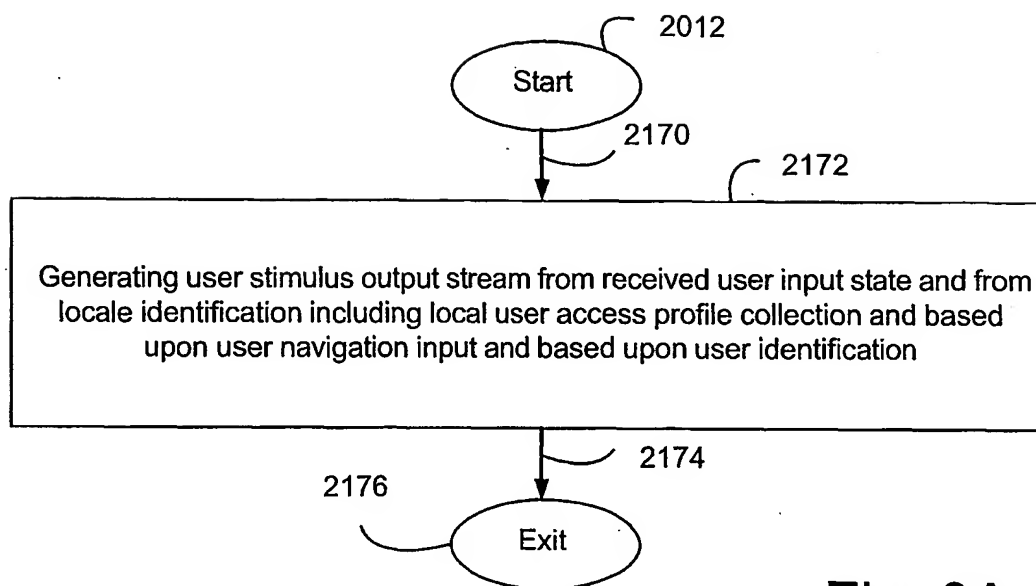


Fig. 8A

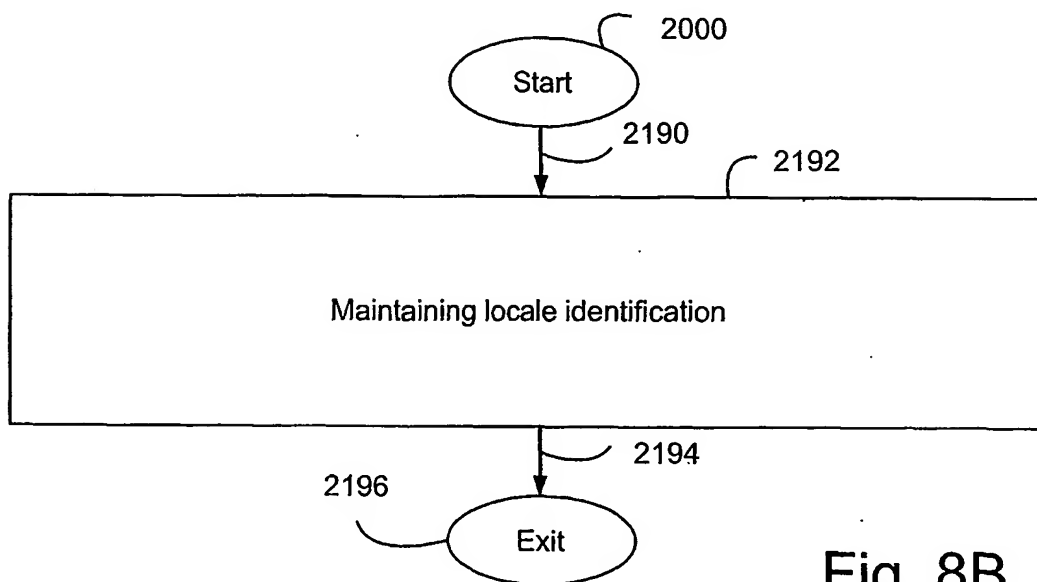


Fig. 8B

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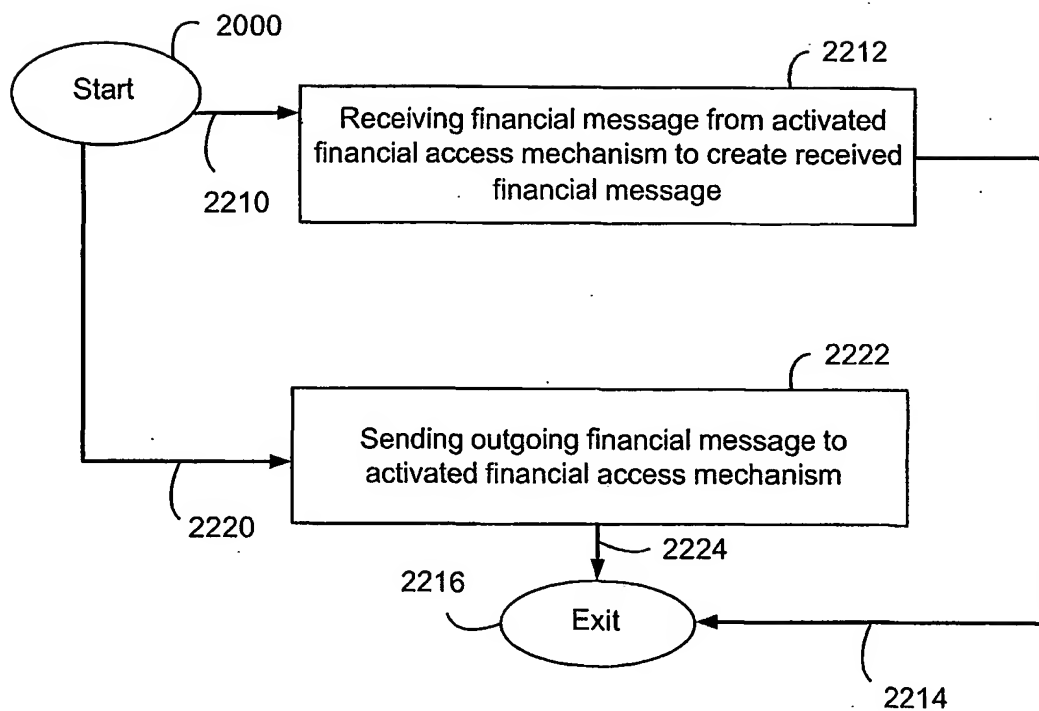


Fig. 9

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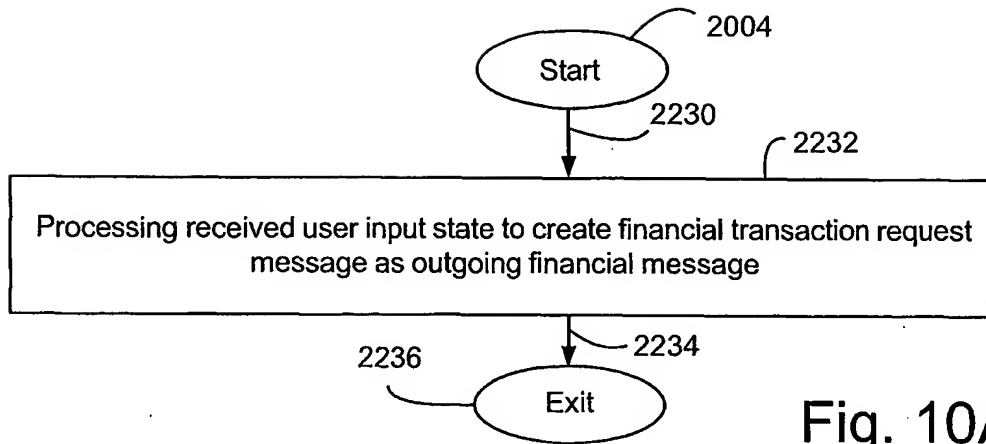


Fig. 10A

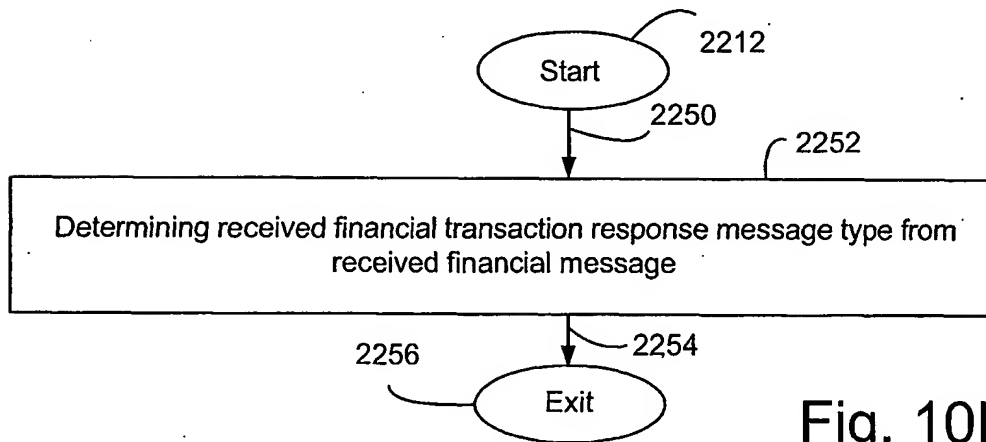


Fig. 10B

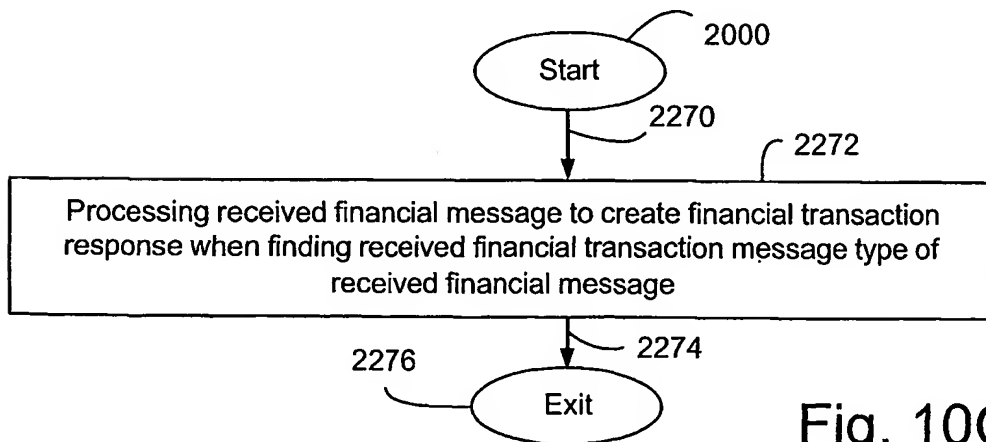
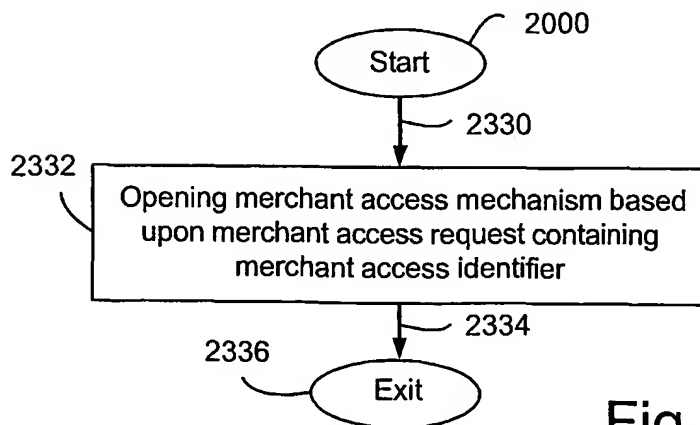
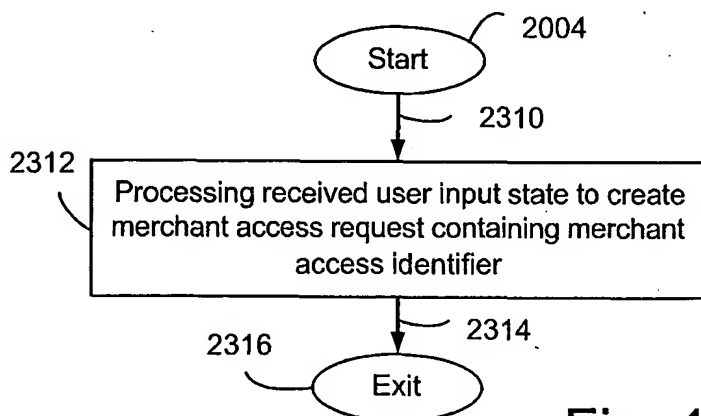
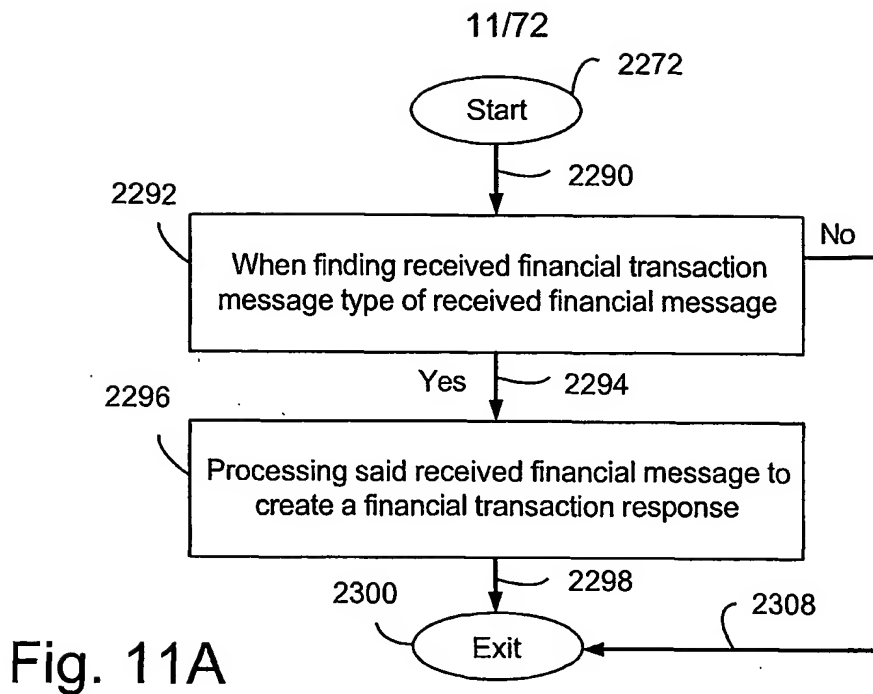


Fig. 10C



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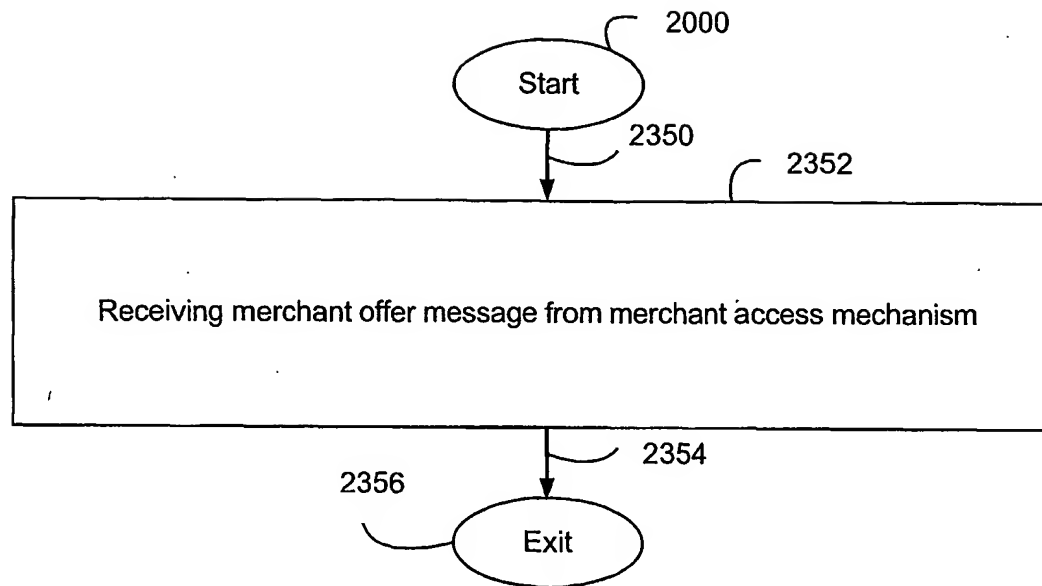


Fig. 12A

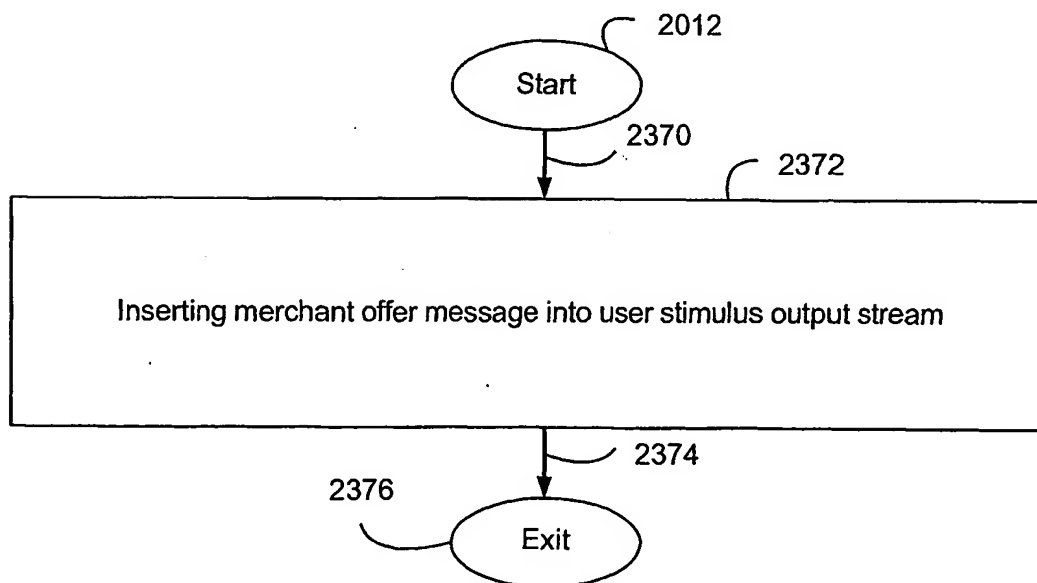


Fig. 12B

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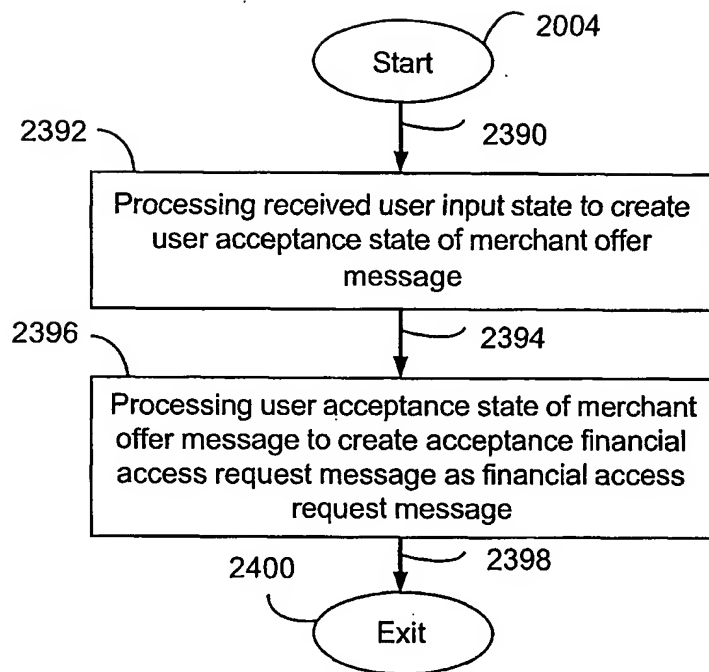


Fig. 13



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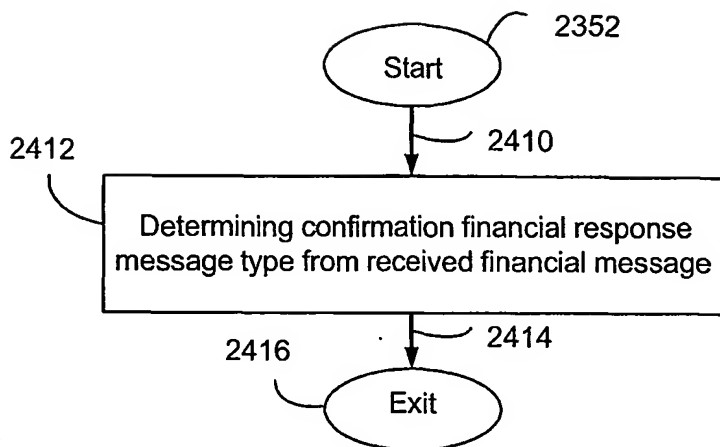


Fig. 14A

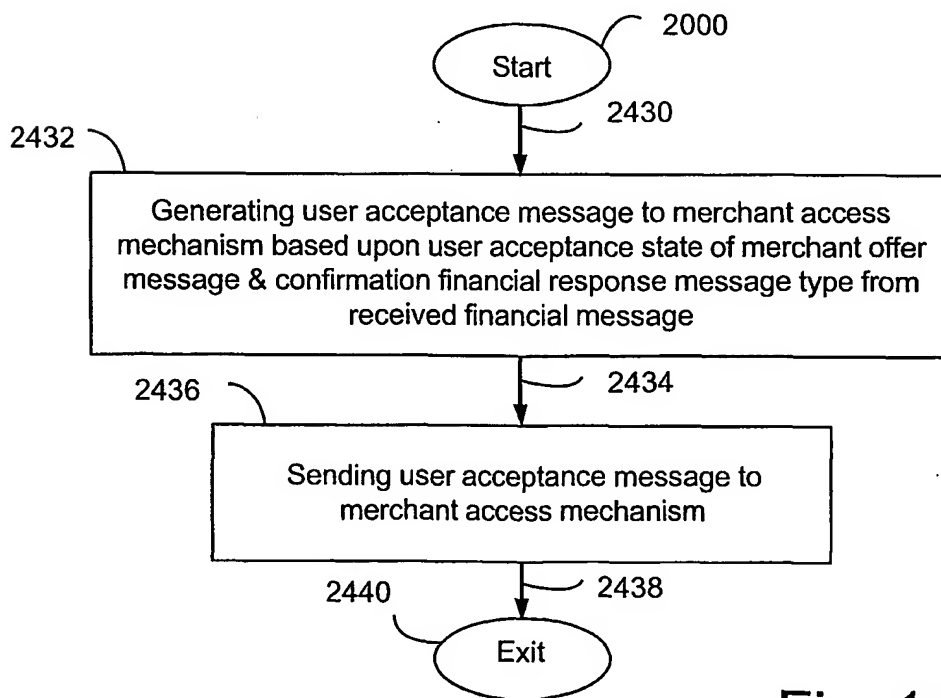


Fig. 14B

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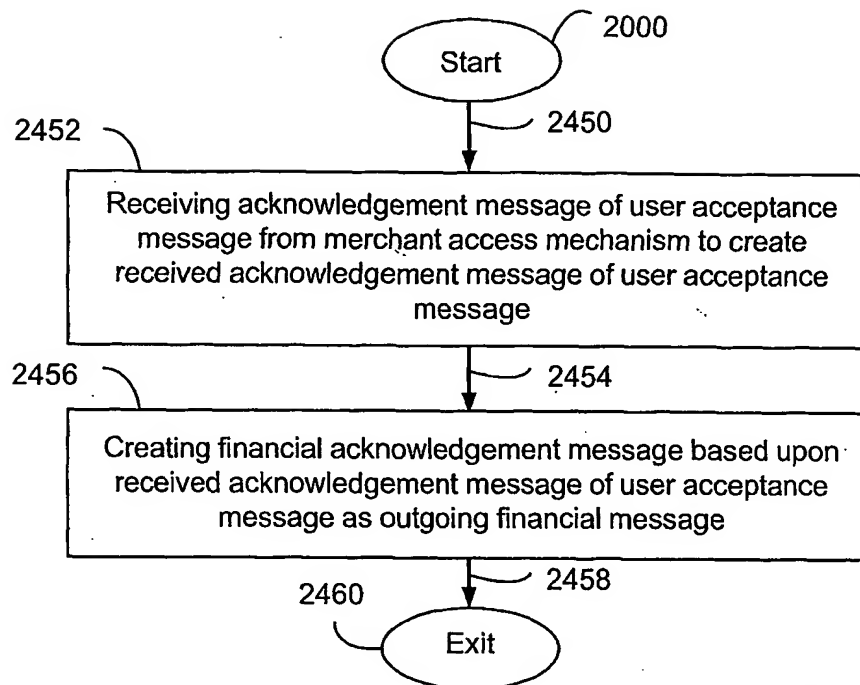


Fig. 15A

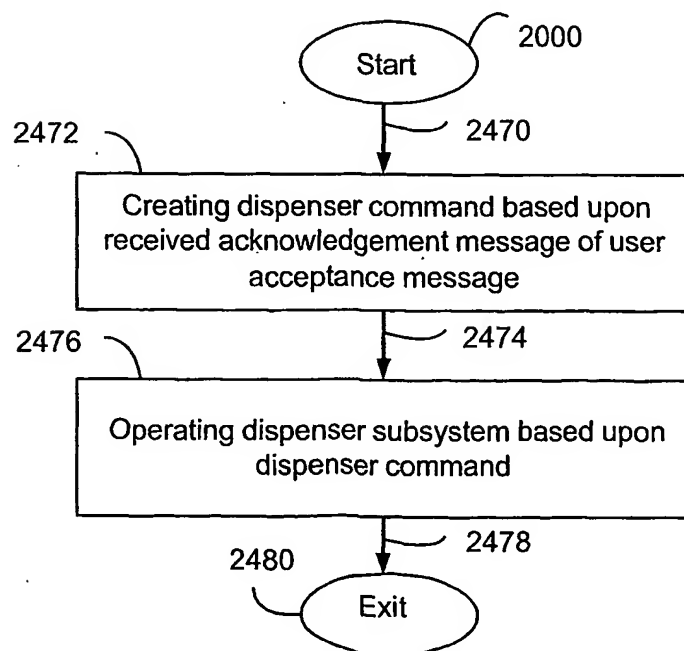


Fig. 15B

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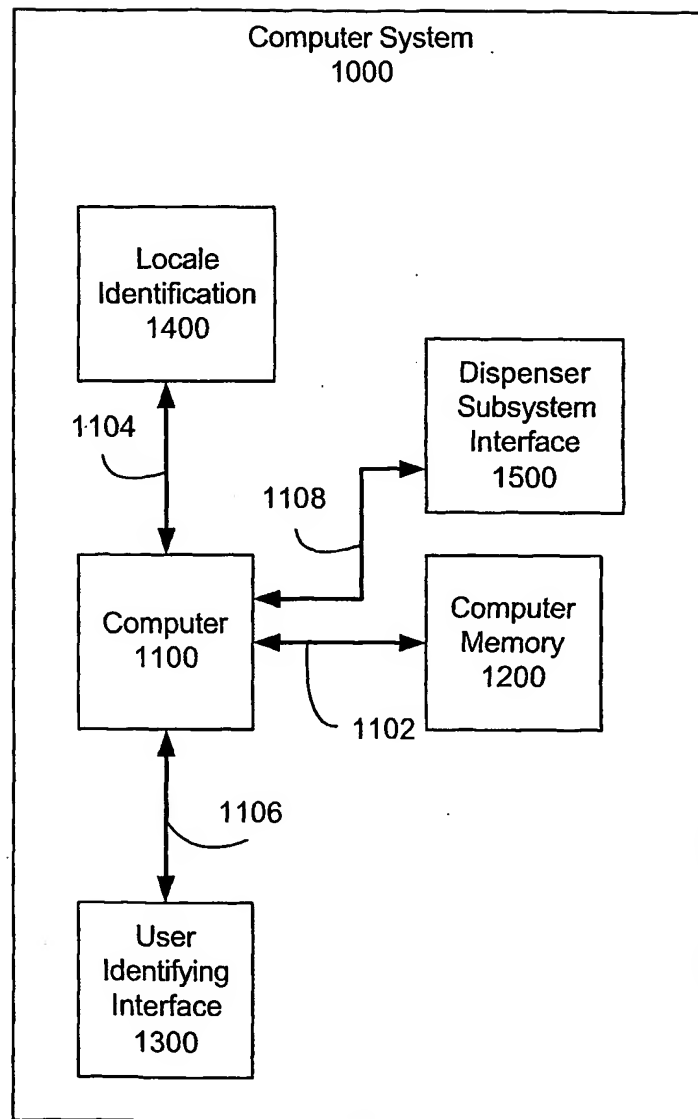


Fig. 16

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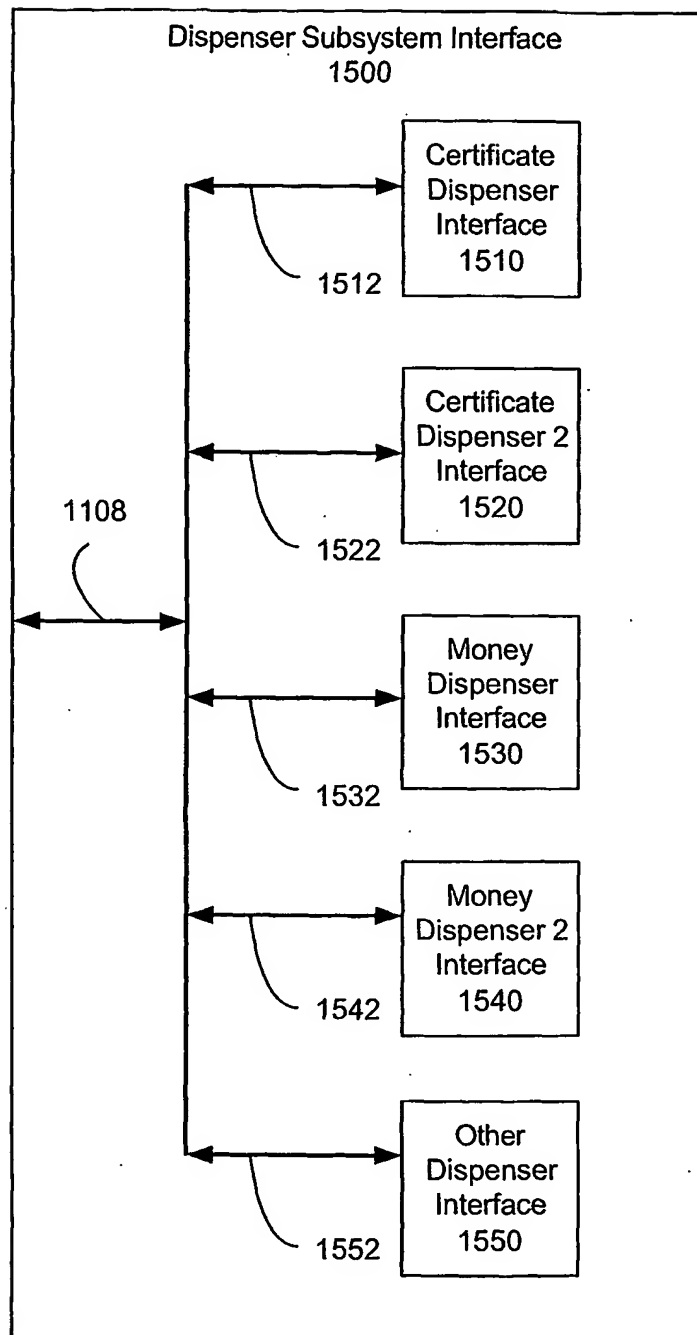


Fig. 17

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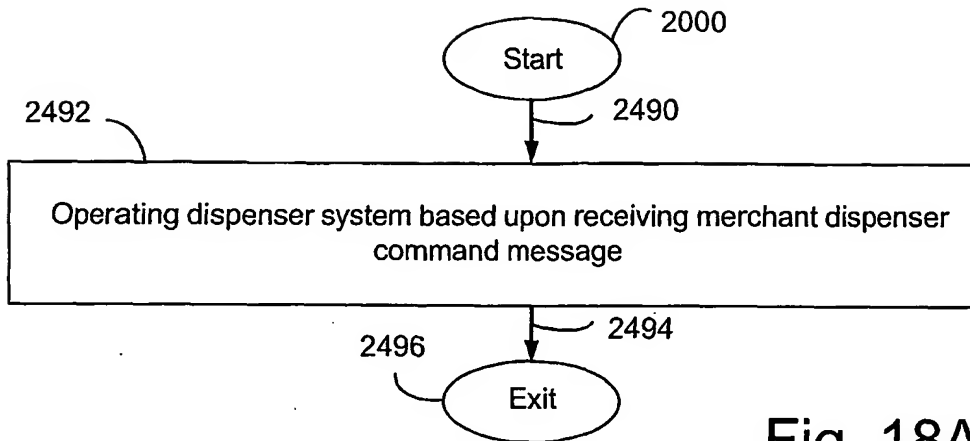


Fig. 18A

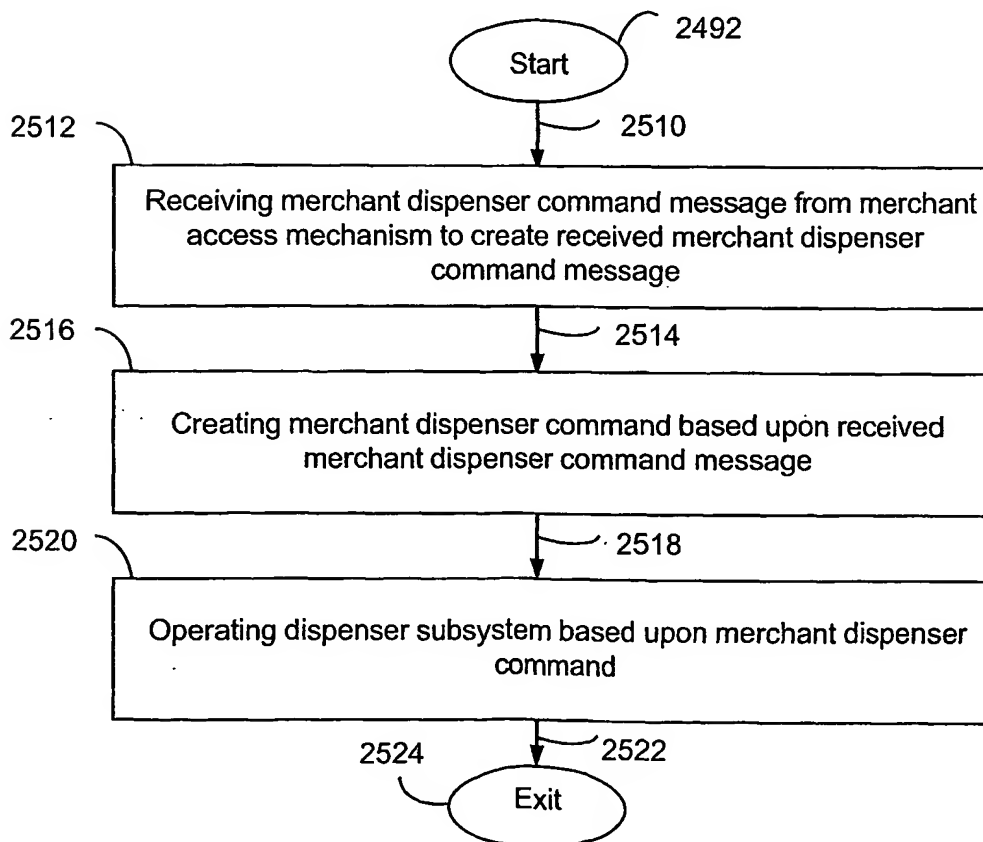


Fig. 18B

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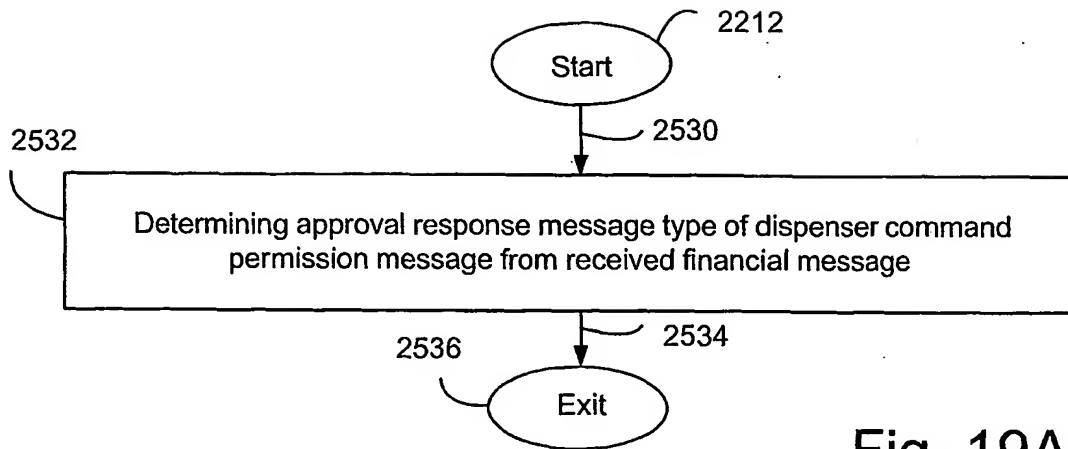


Fig. 19A

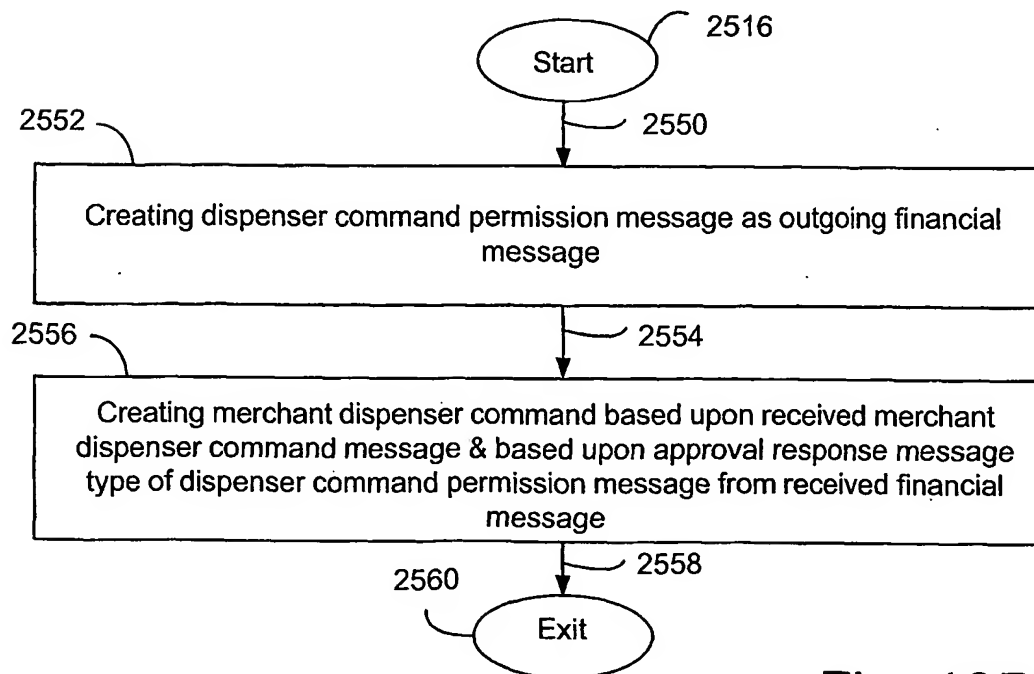


Fig. 19B

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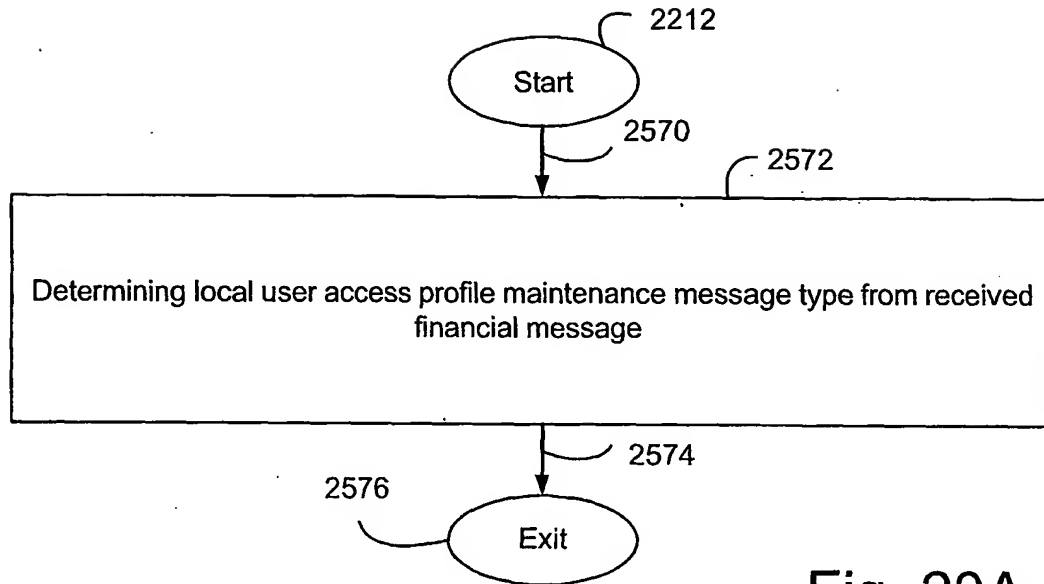


Fig. 20A

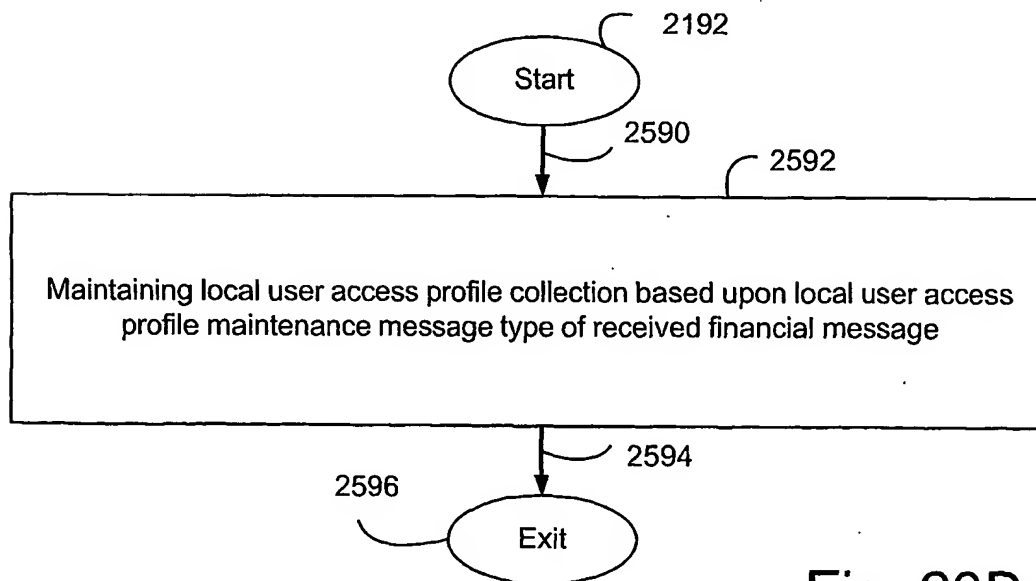


Fig. 20B

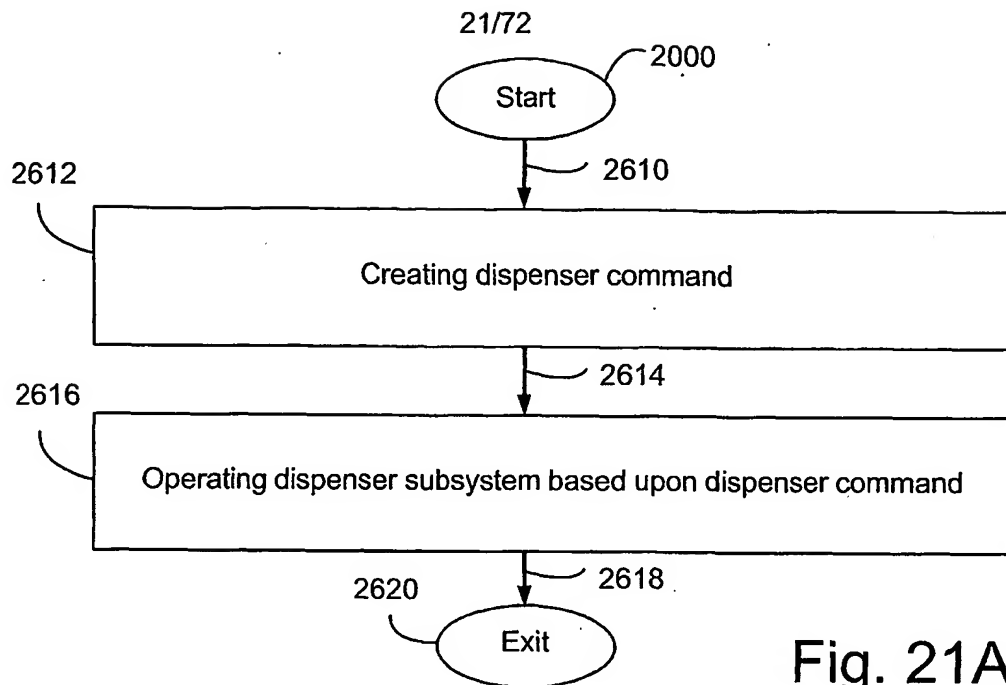


Fig. 21A

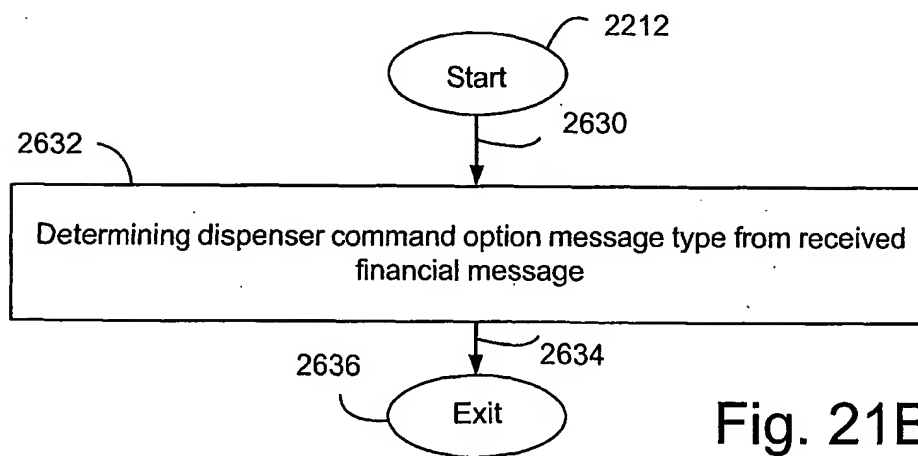


Fig. 21B

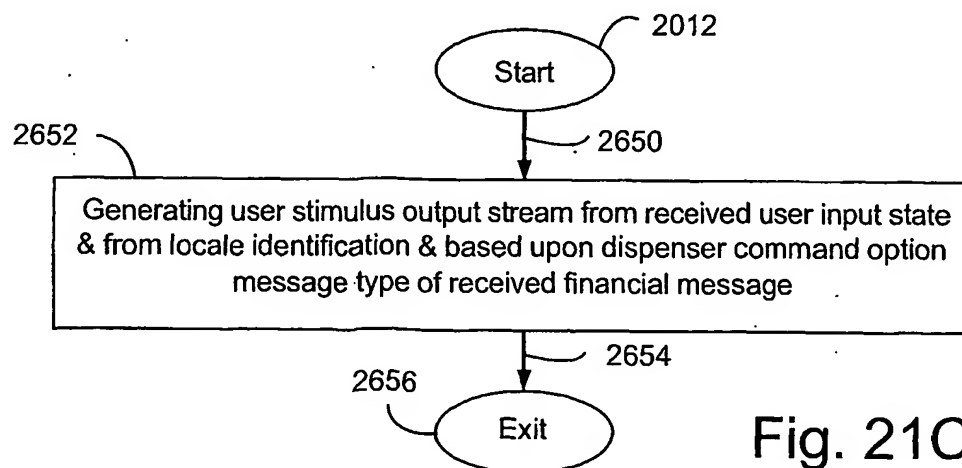


Fig. 21C



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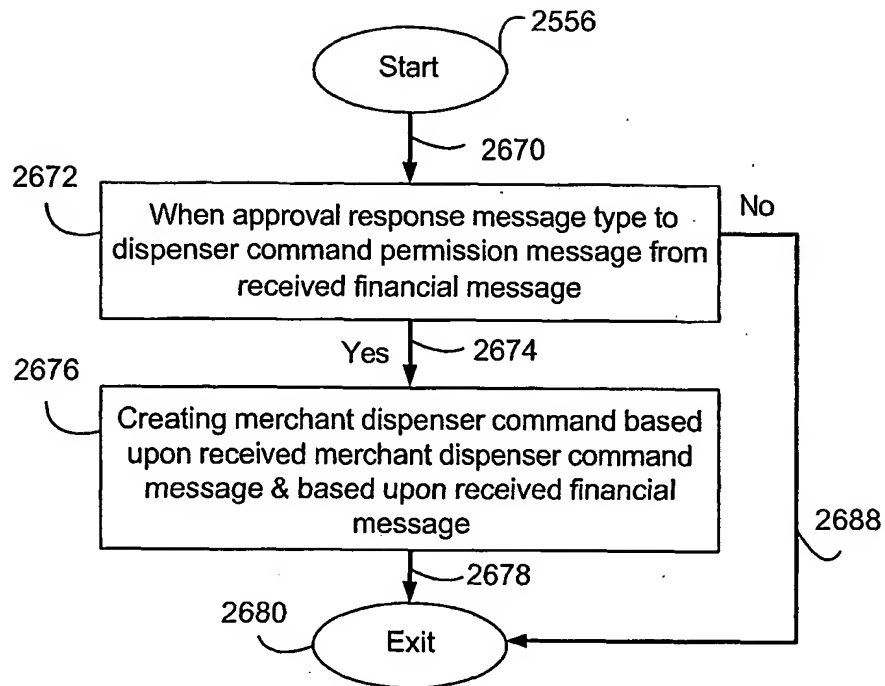


Fig. 22A

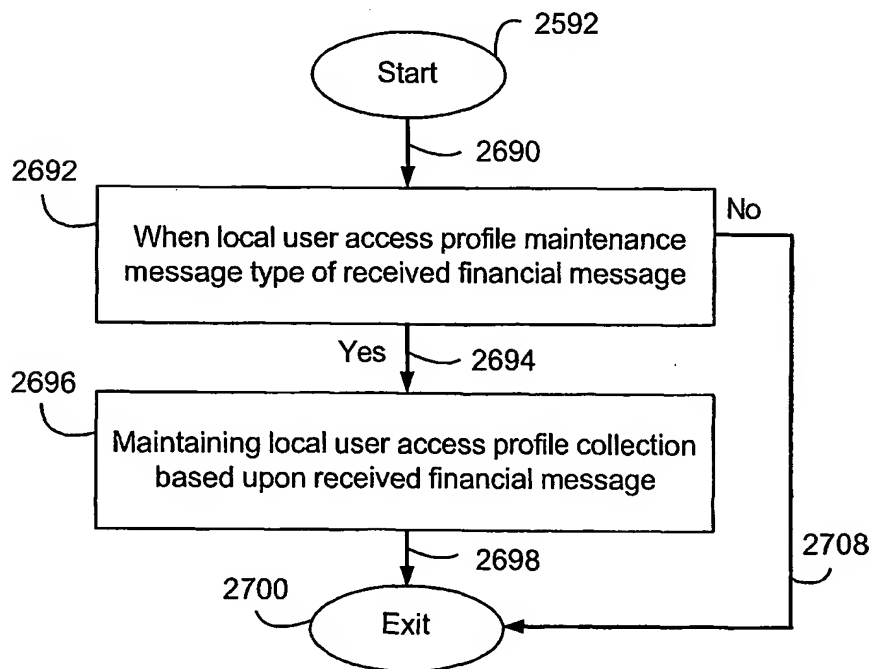
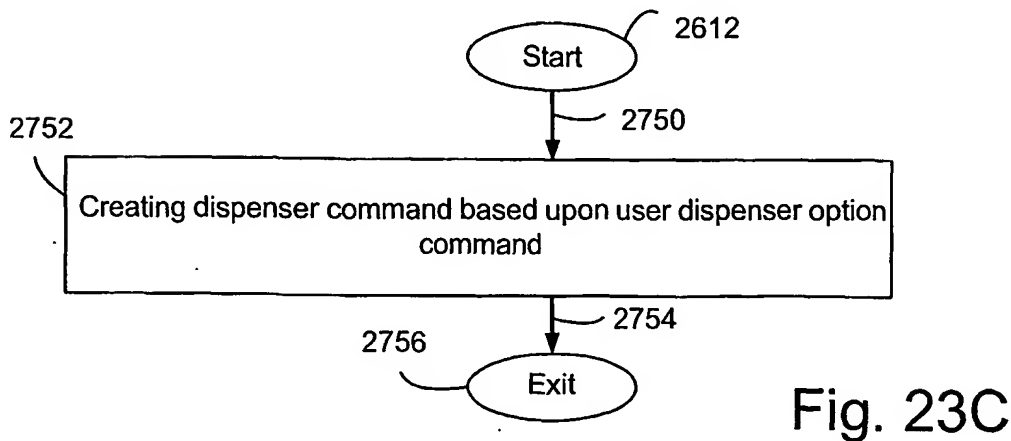
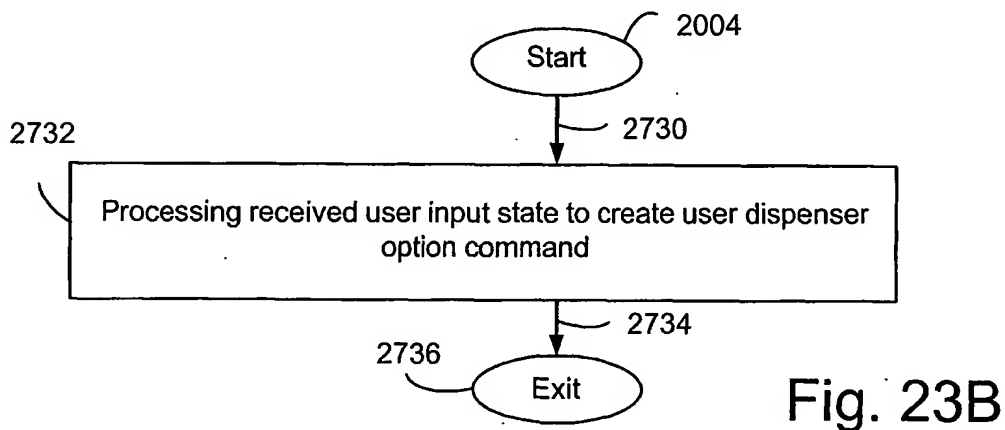
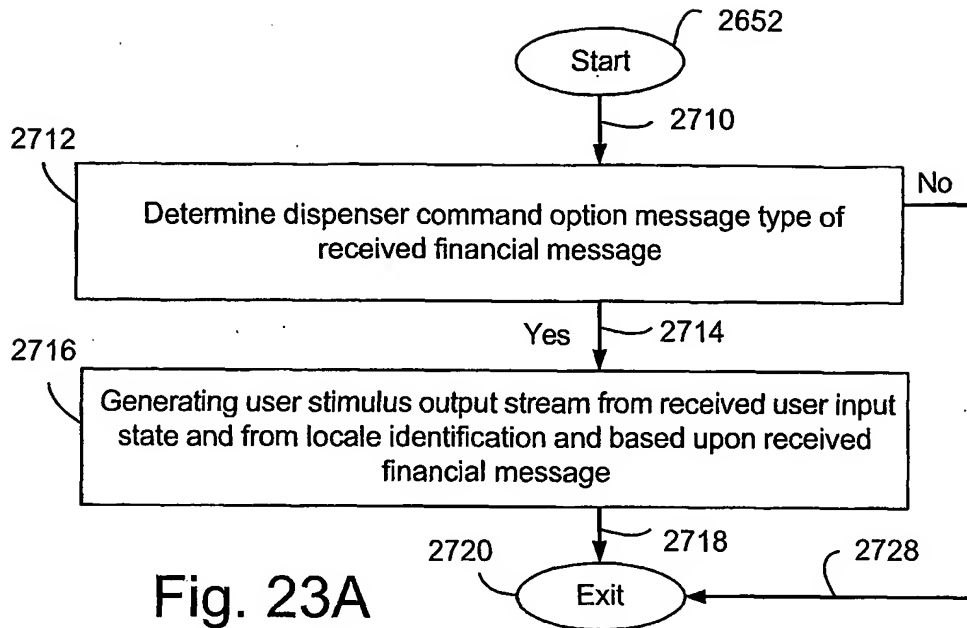


Fig. 22B

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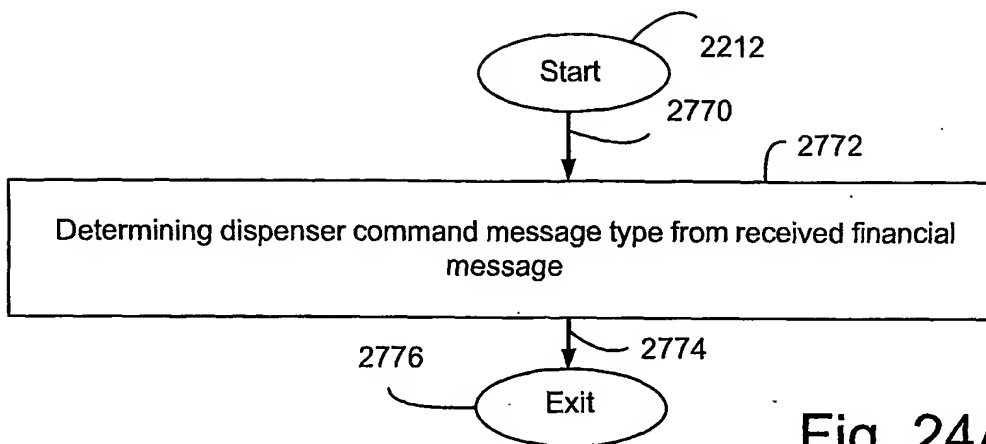


Fig. 24A

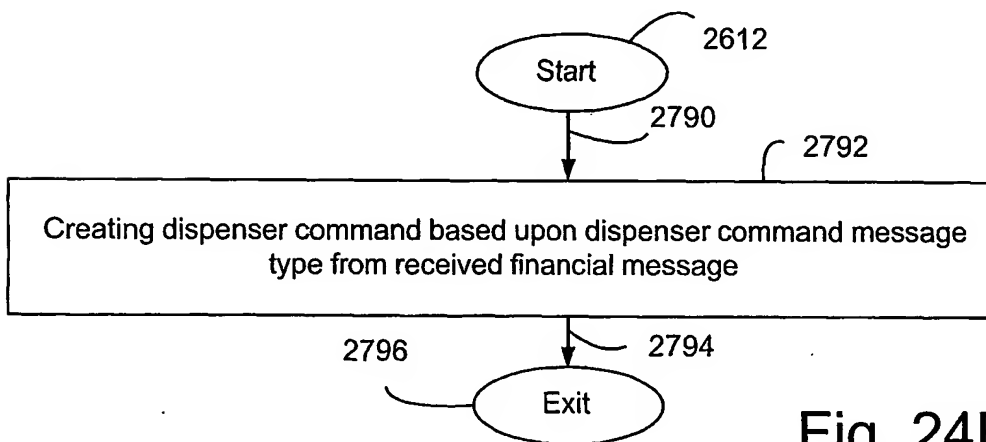


Fig. 24B

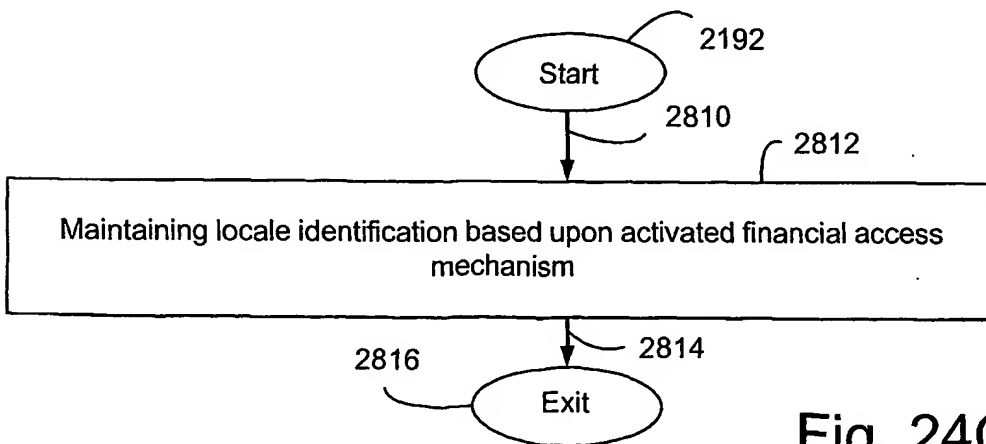
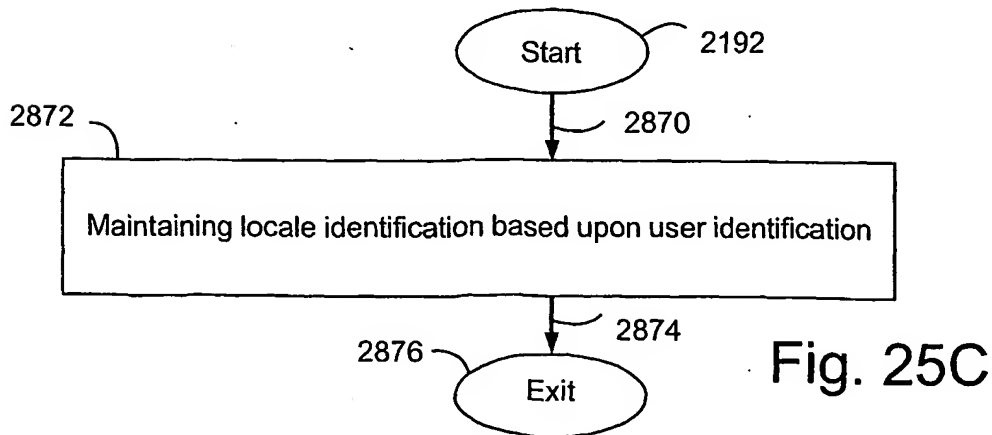
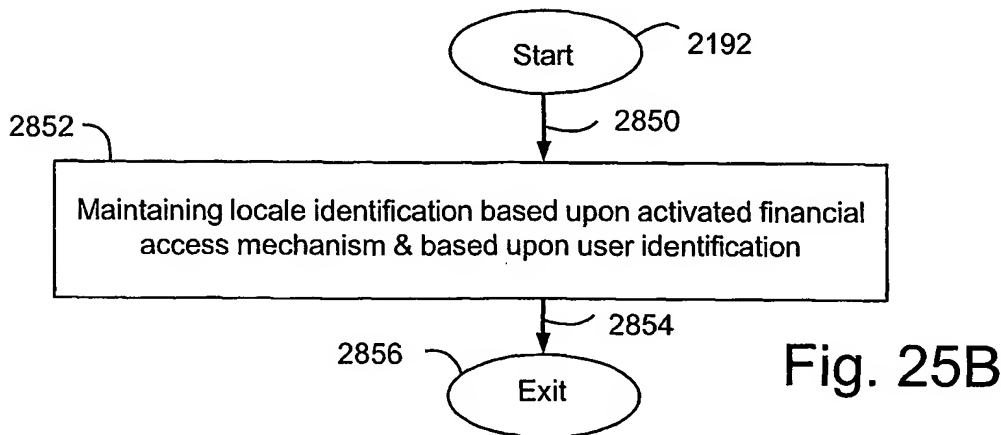
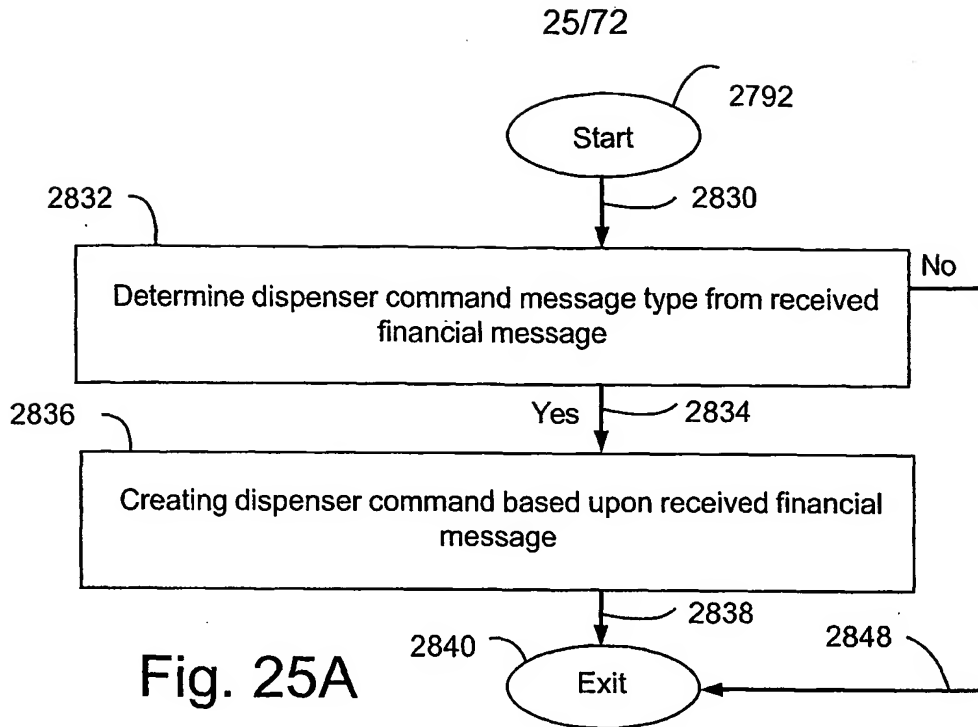


Fig. 24C



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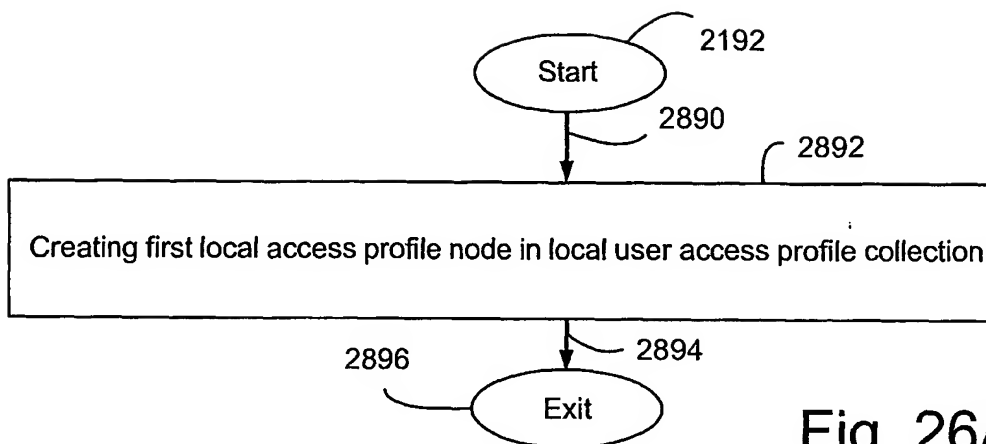


Fig. 26A

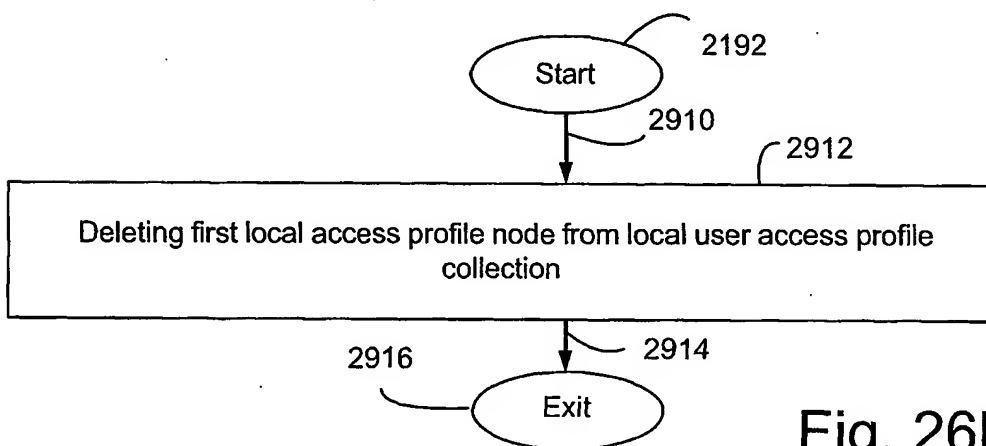


Fig. 26B

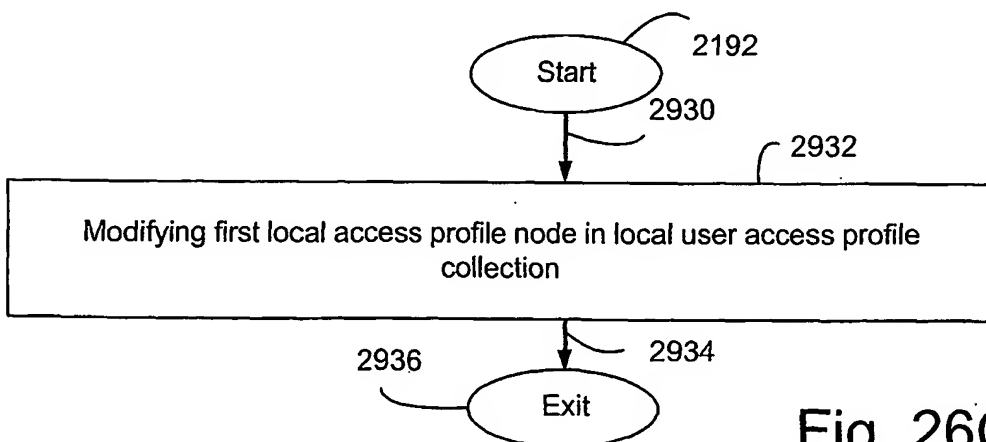


Fig. 26C

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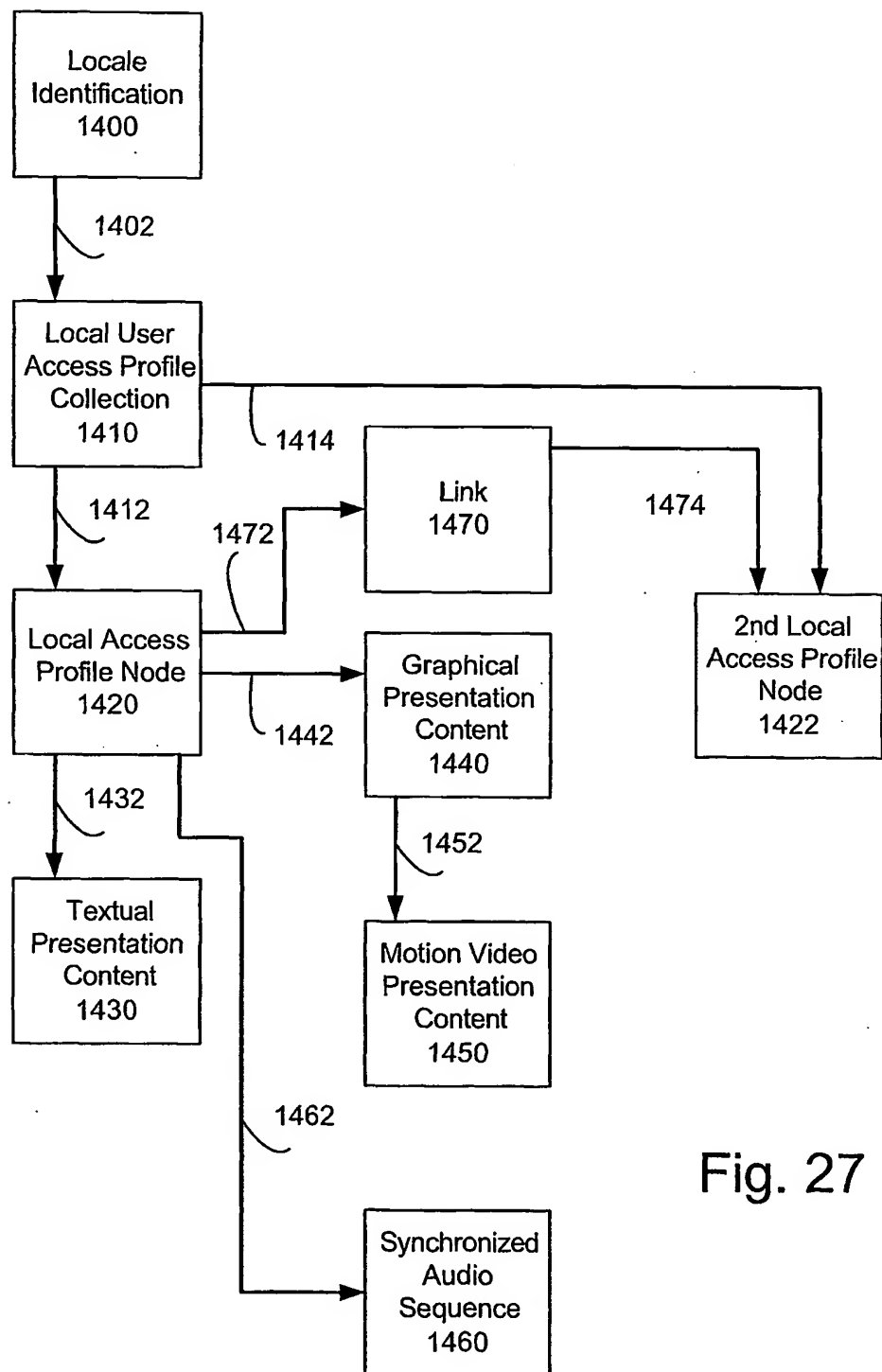


Fig. 27

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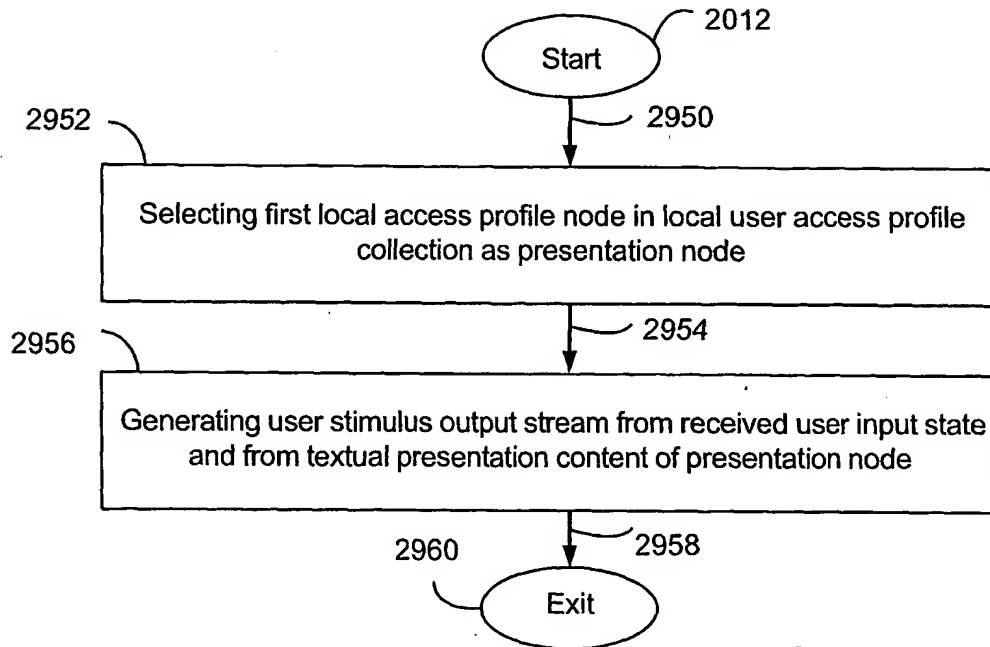


Fig. 28A

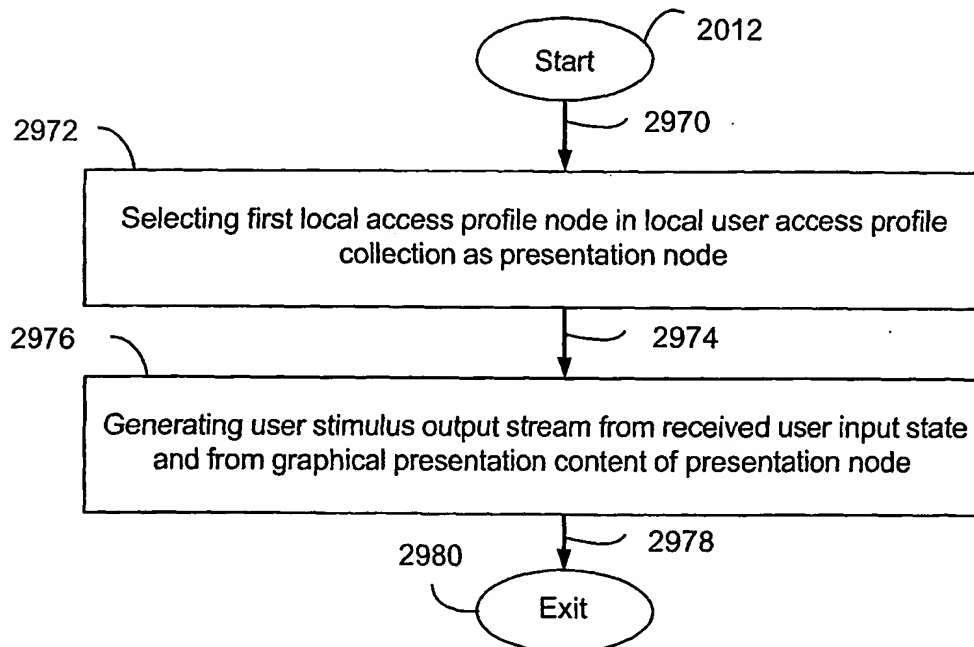


Fig. 28B

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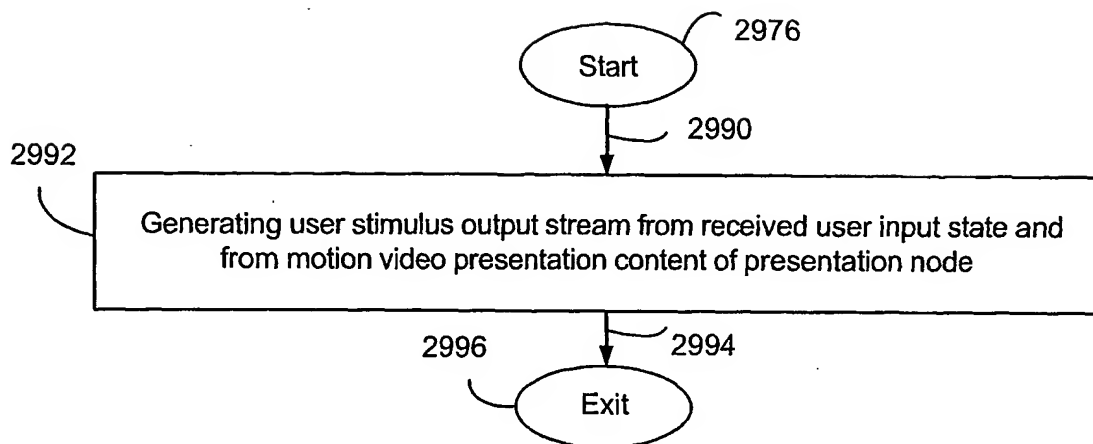


Fig. 29A

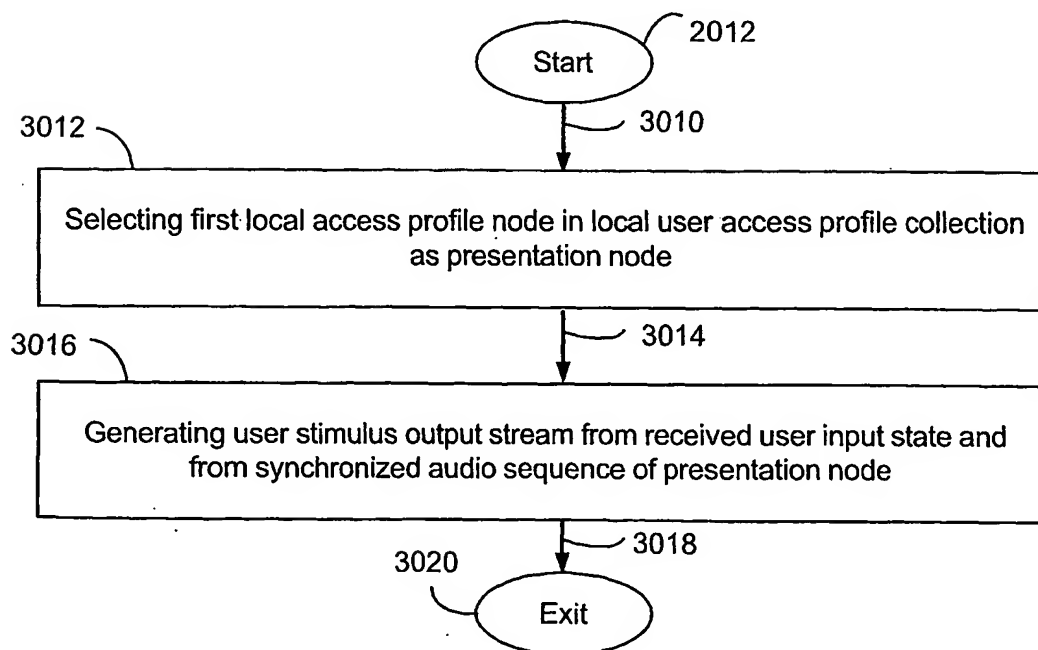


Fig. 29B



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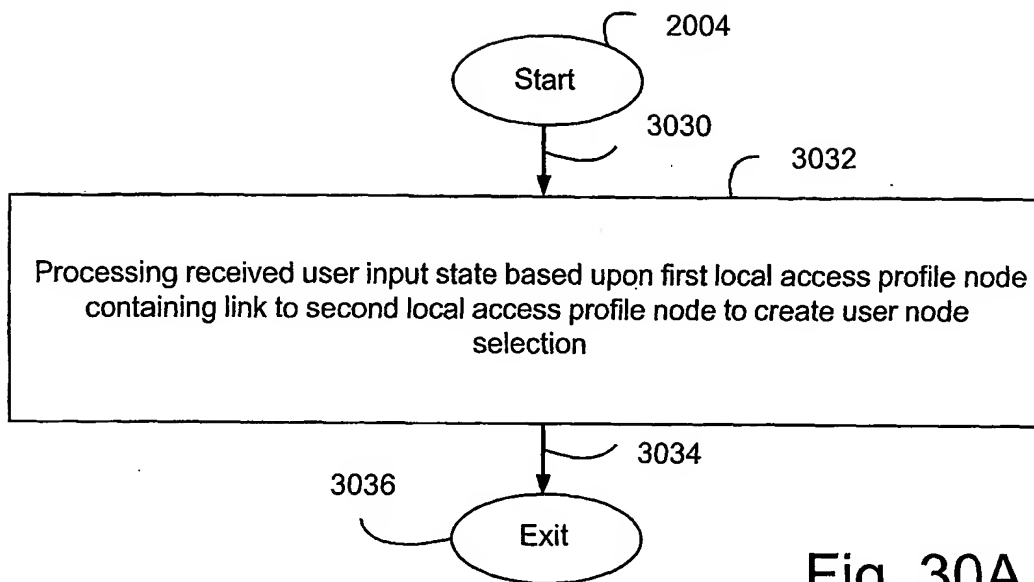


Fig. 30A

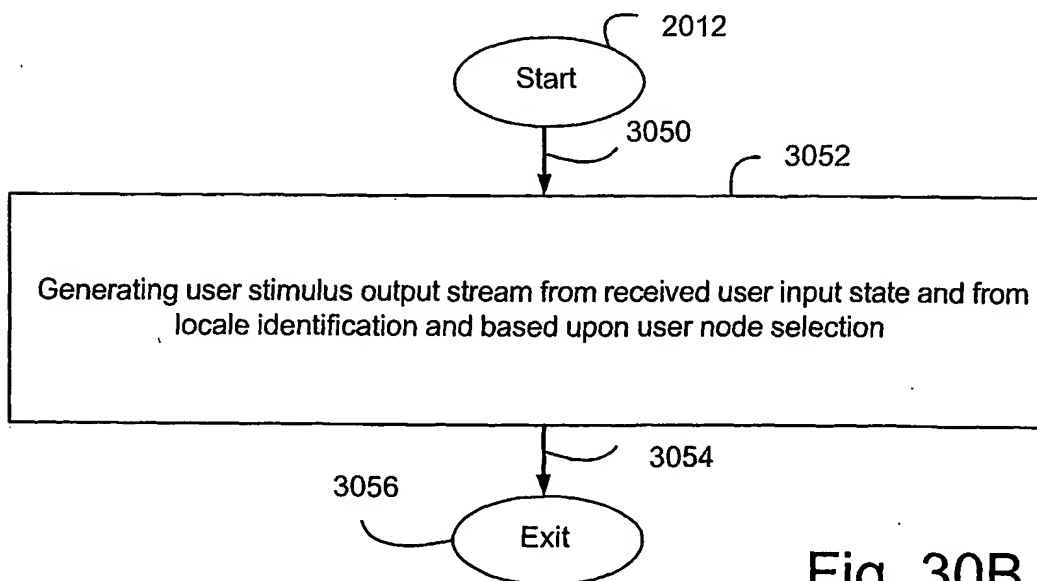


Fig. 30B

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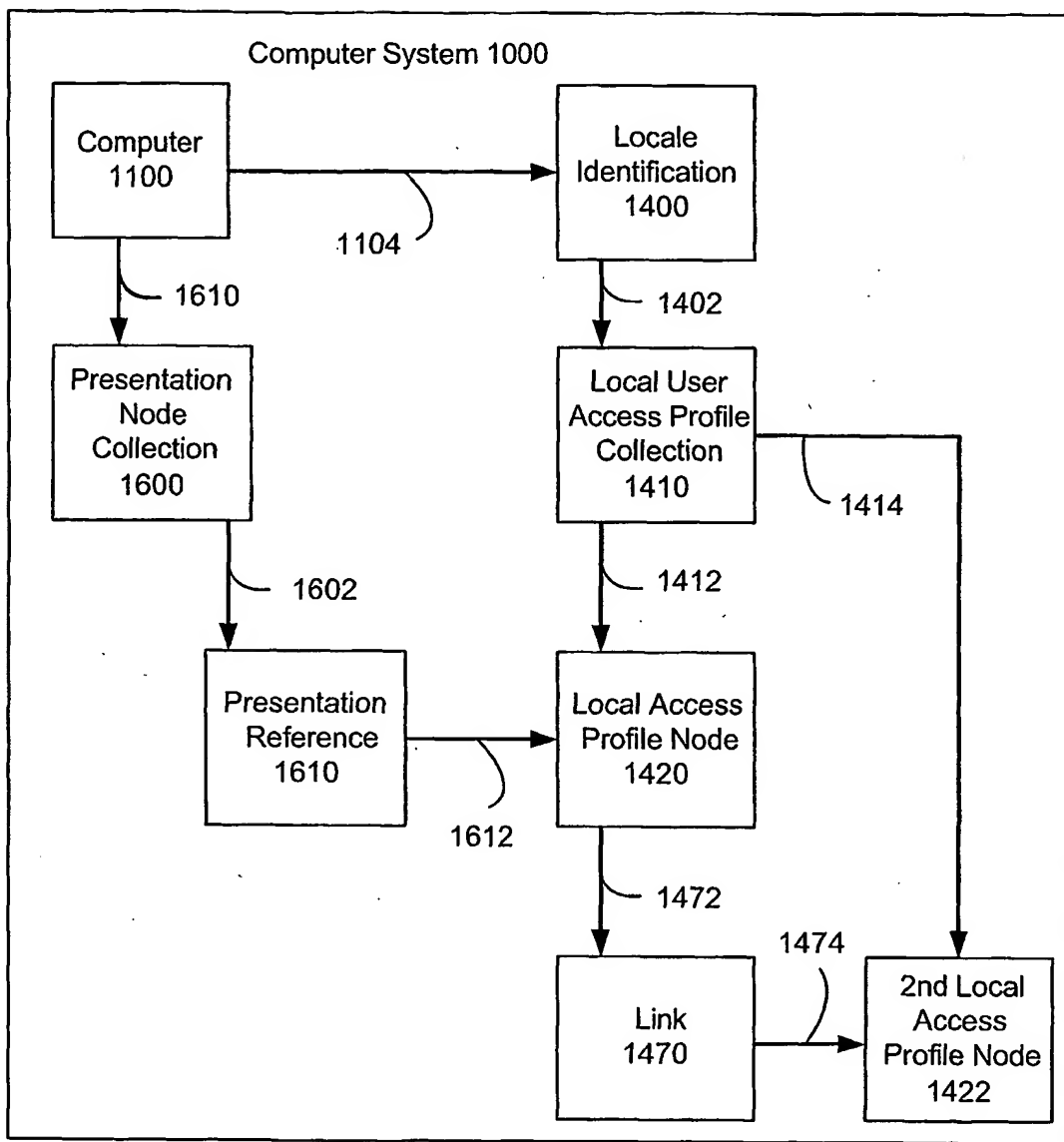


Fig. 31A

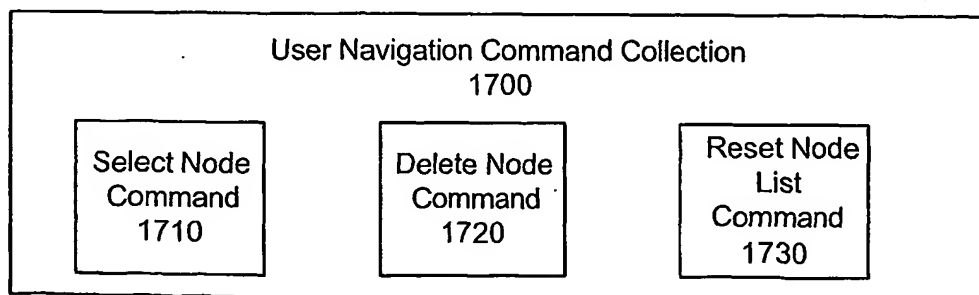


Fig. 31B

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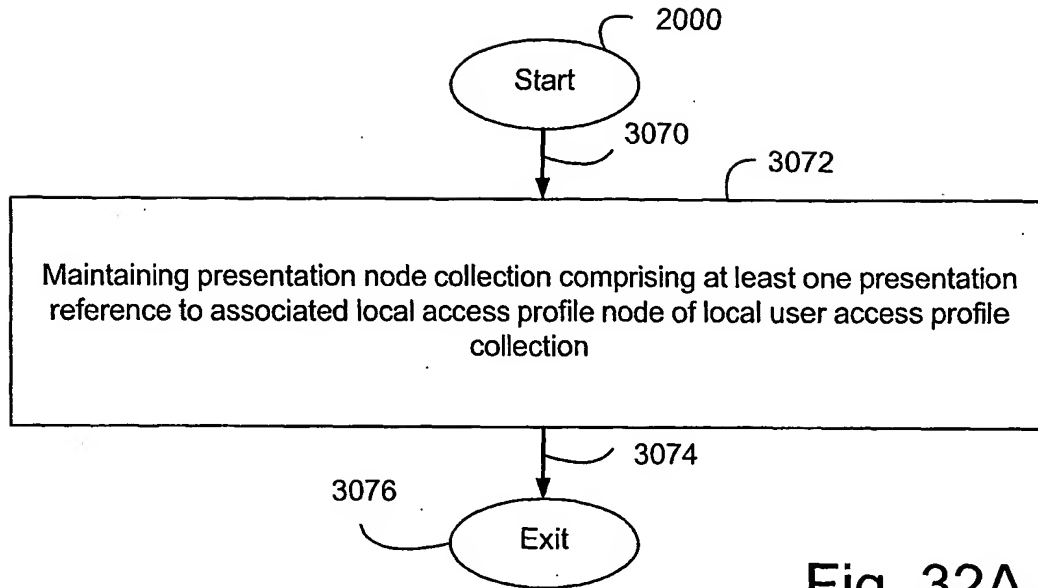


Fig. 32A

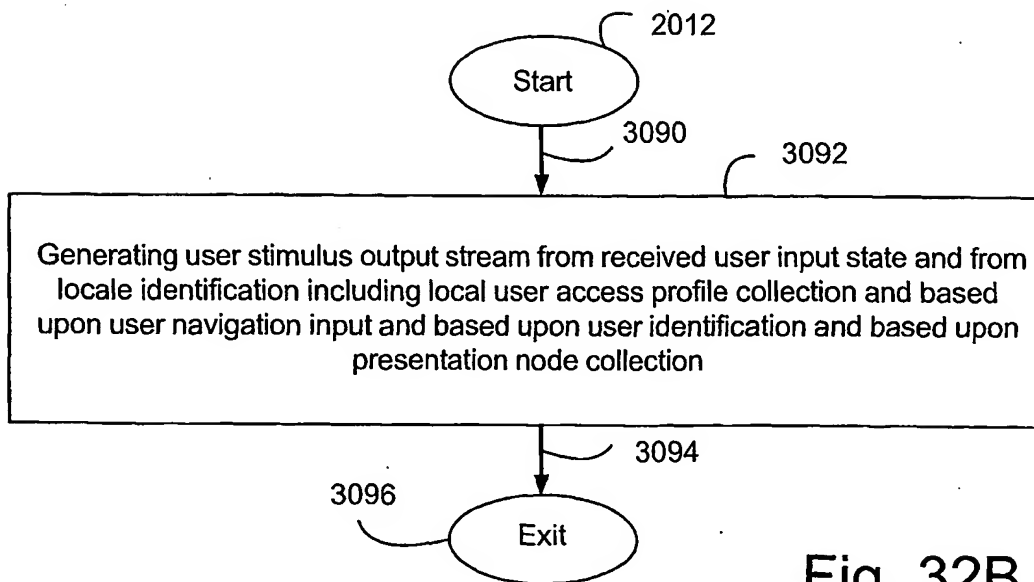


Fig. 32B

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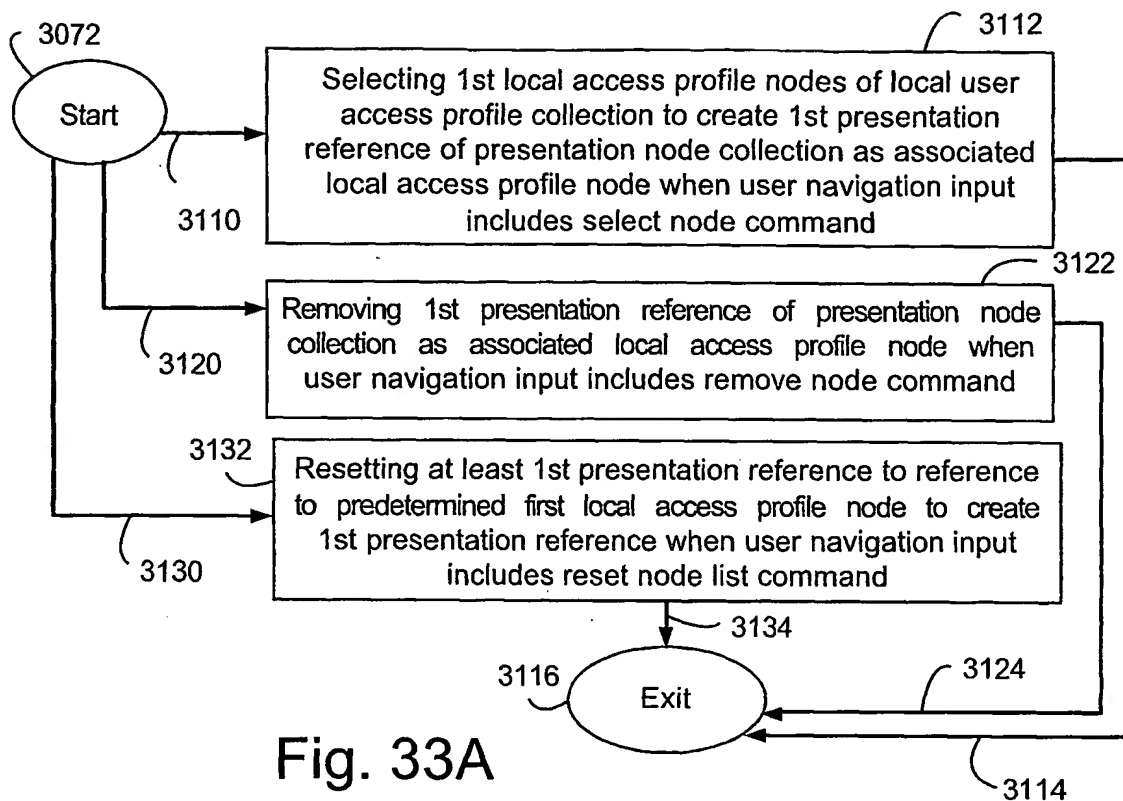


Fig. 33A

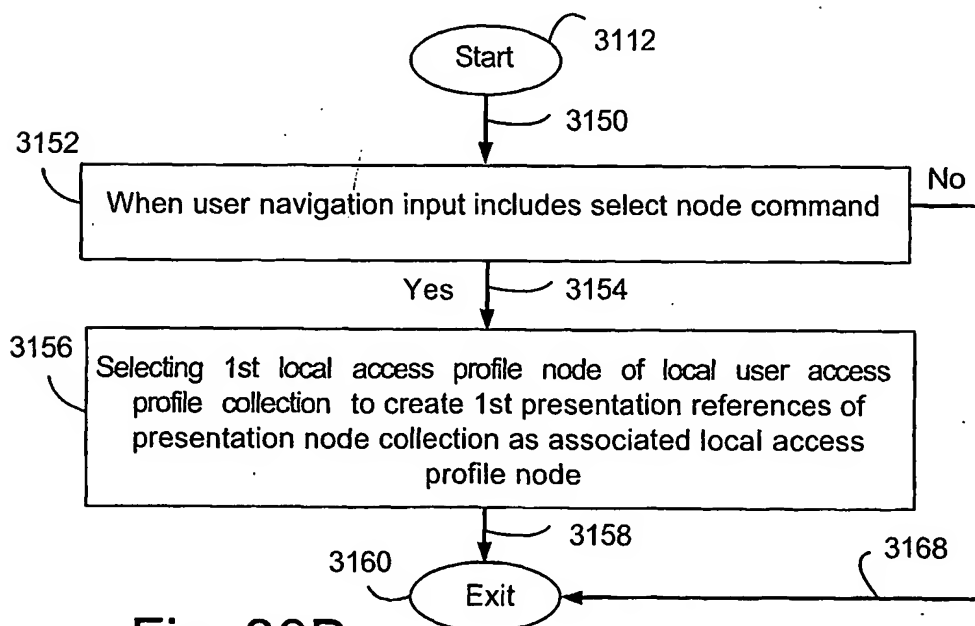


Fig. 33B

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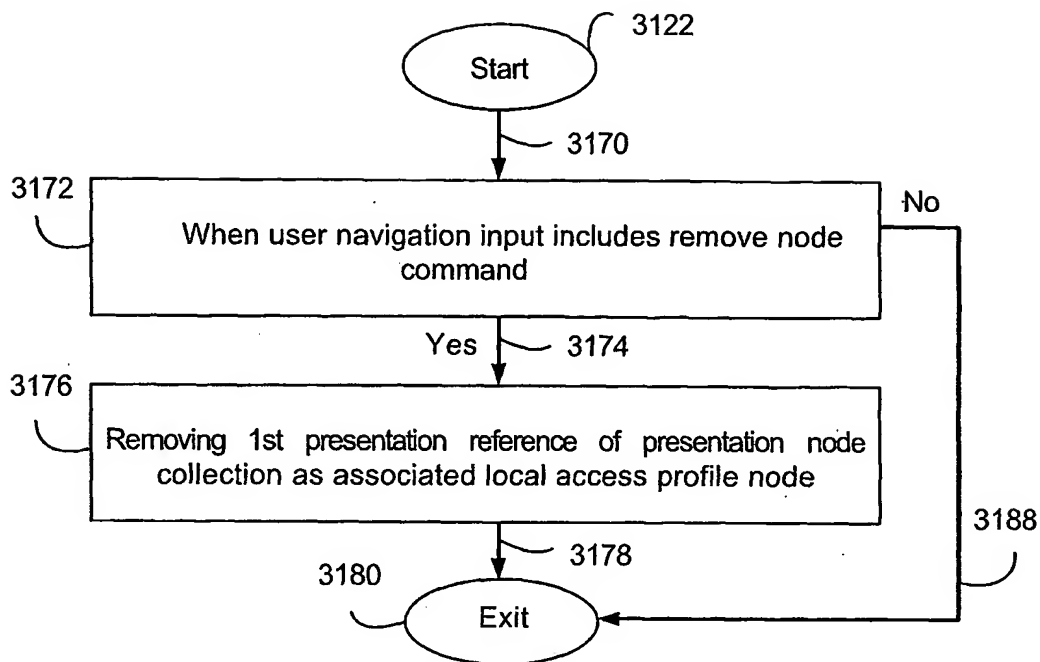


Fig. 34A

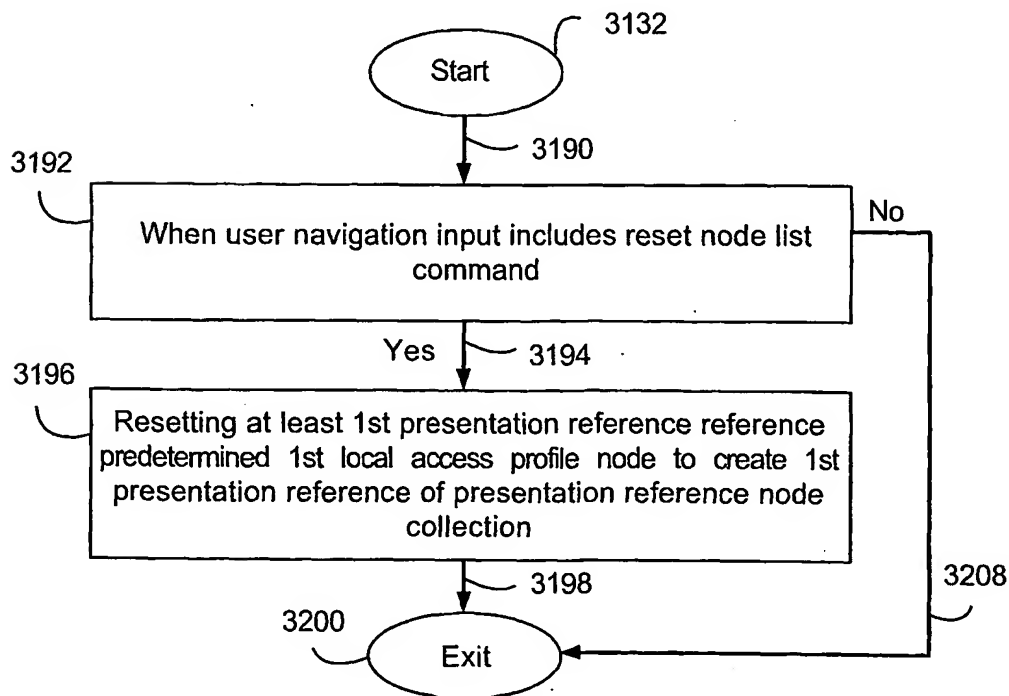


Fig. 34B

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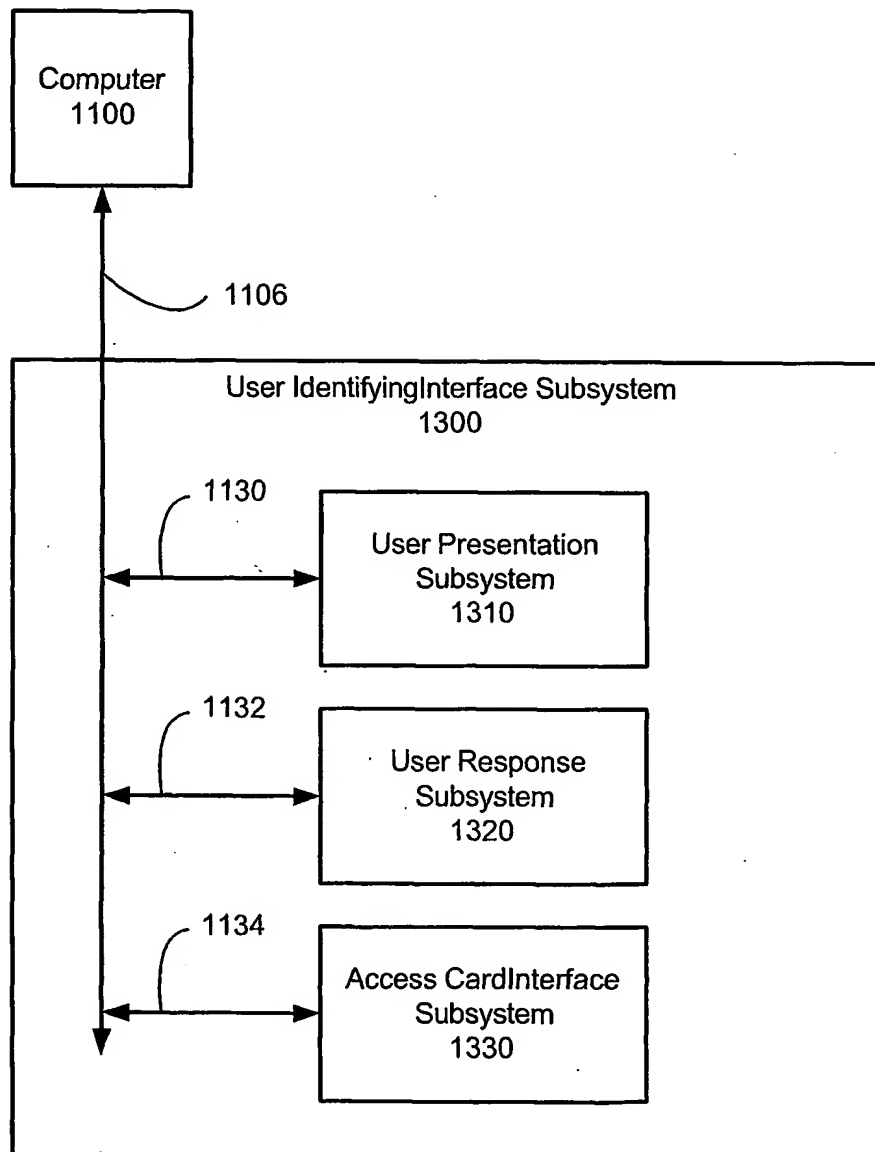


Fig. 35

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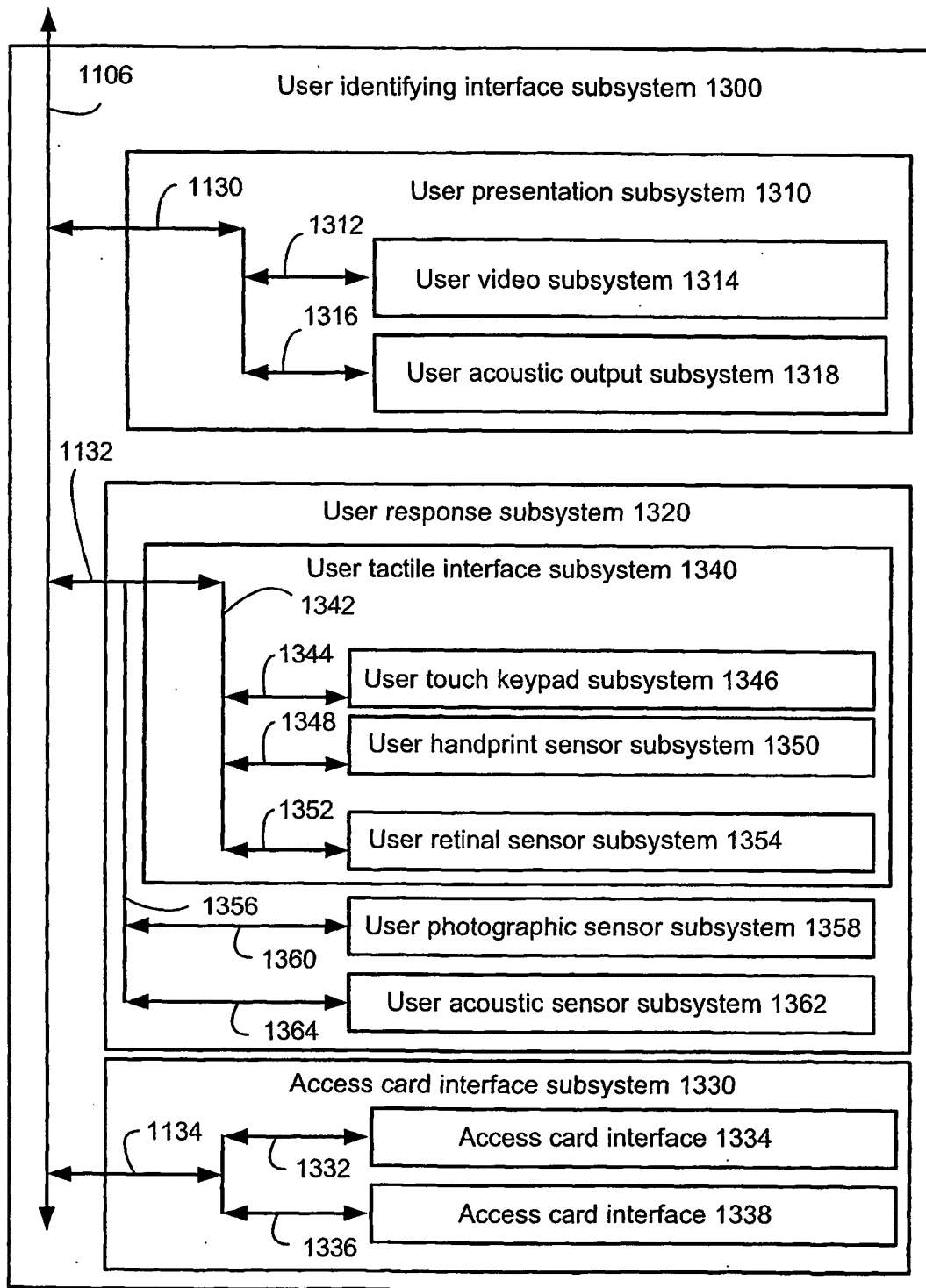


Fig. 36

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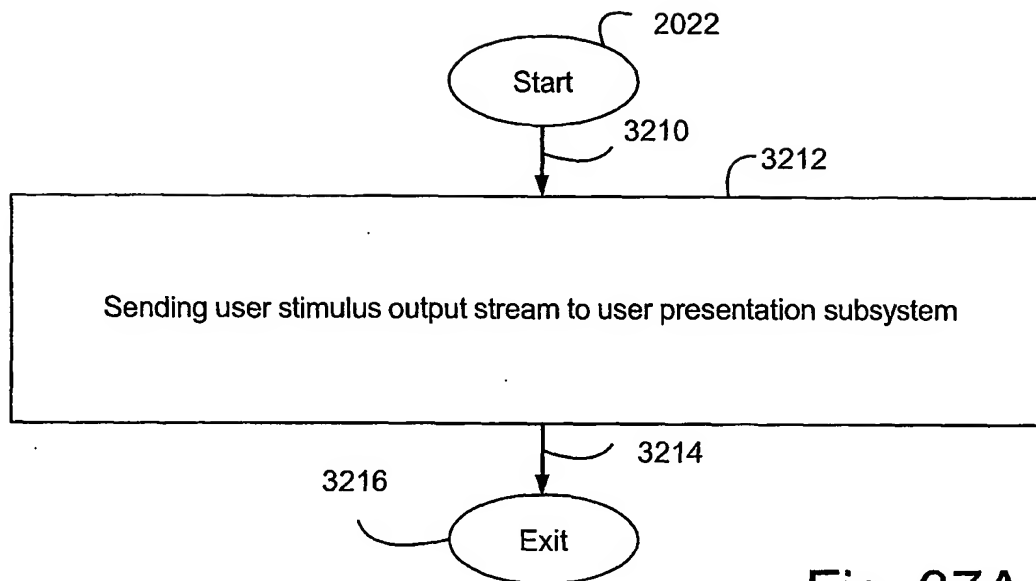


Fig. 37A

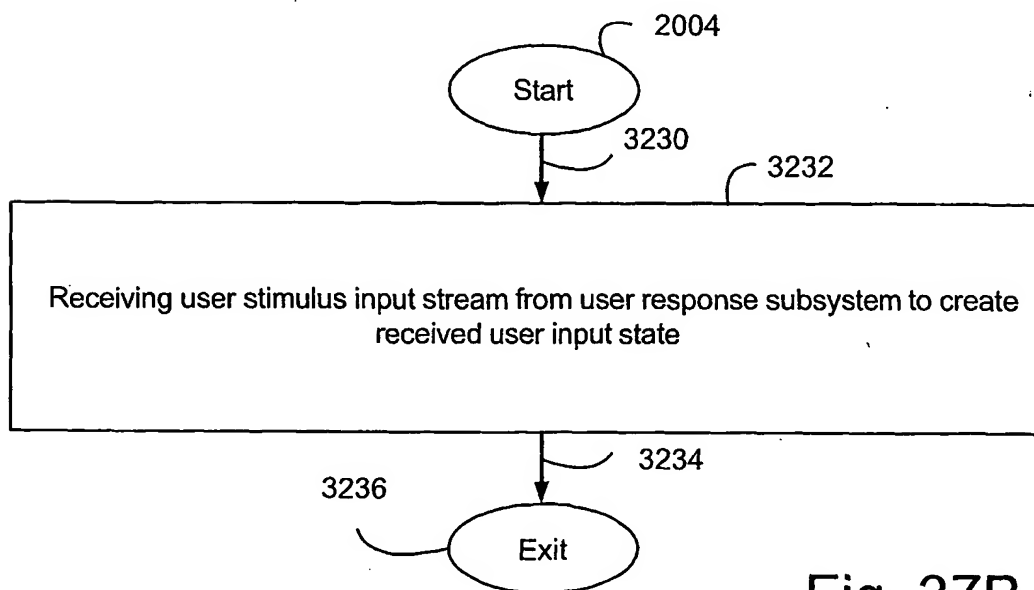


Fig. 37B



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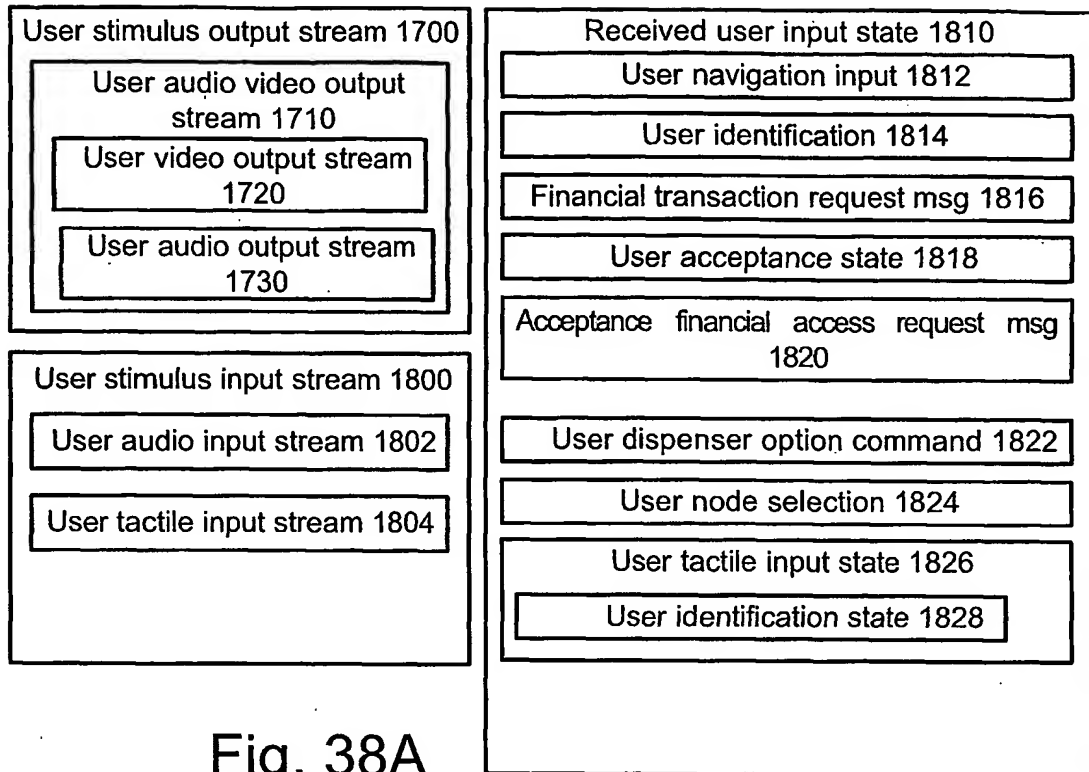


Fig. 38A

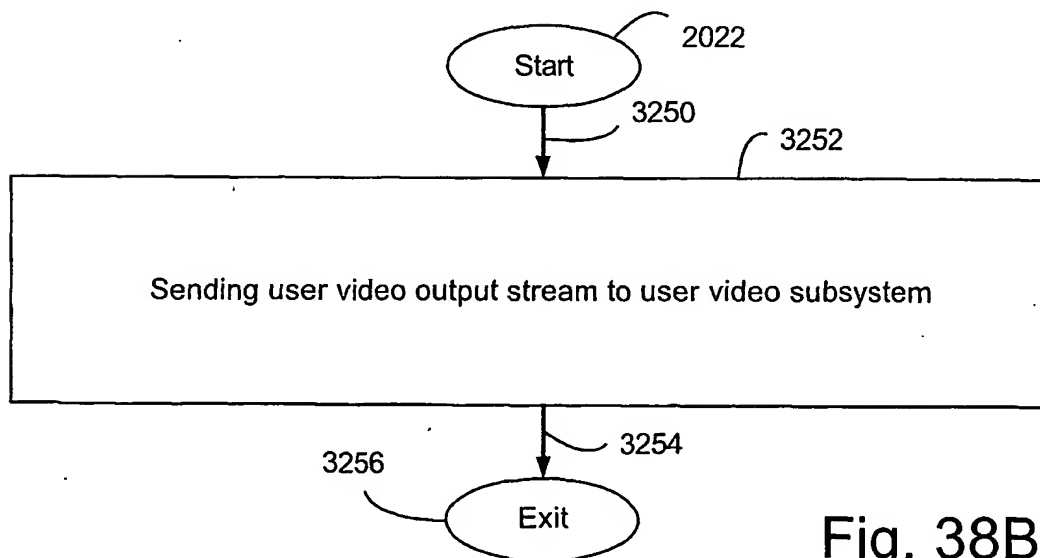


Fig. 38B

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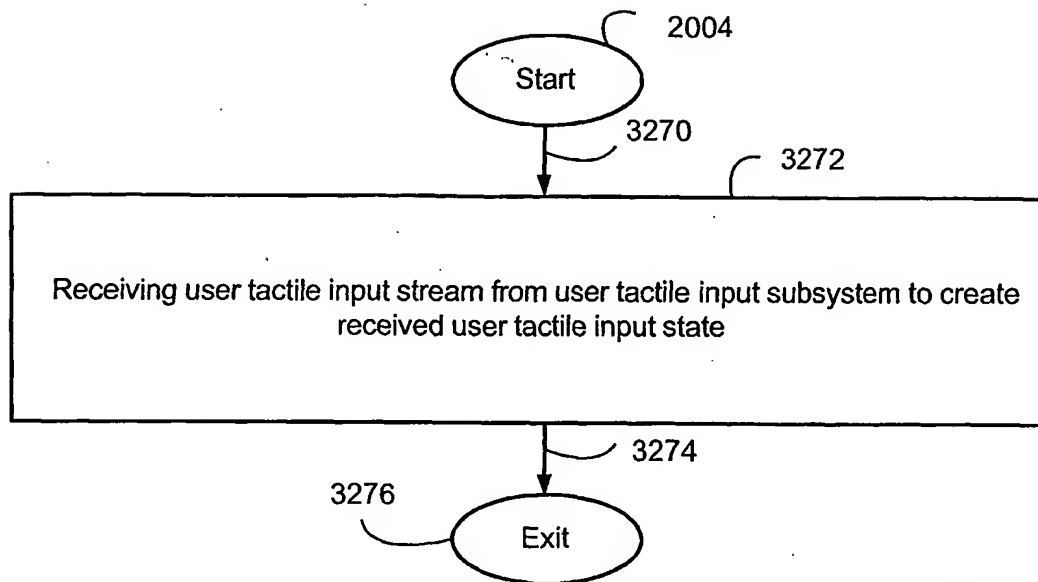


Fig. 39A

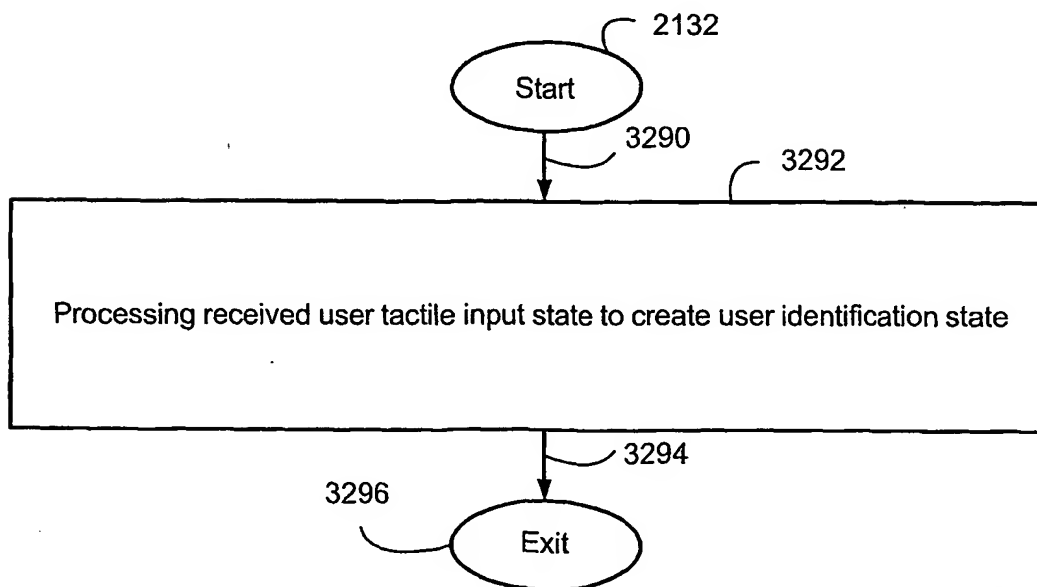


Fig. 39B

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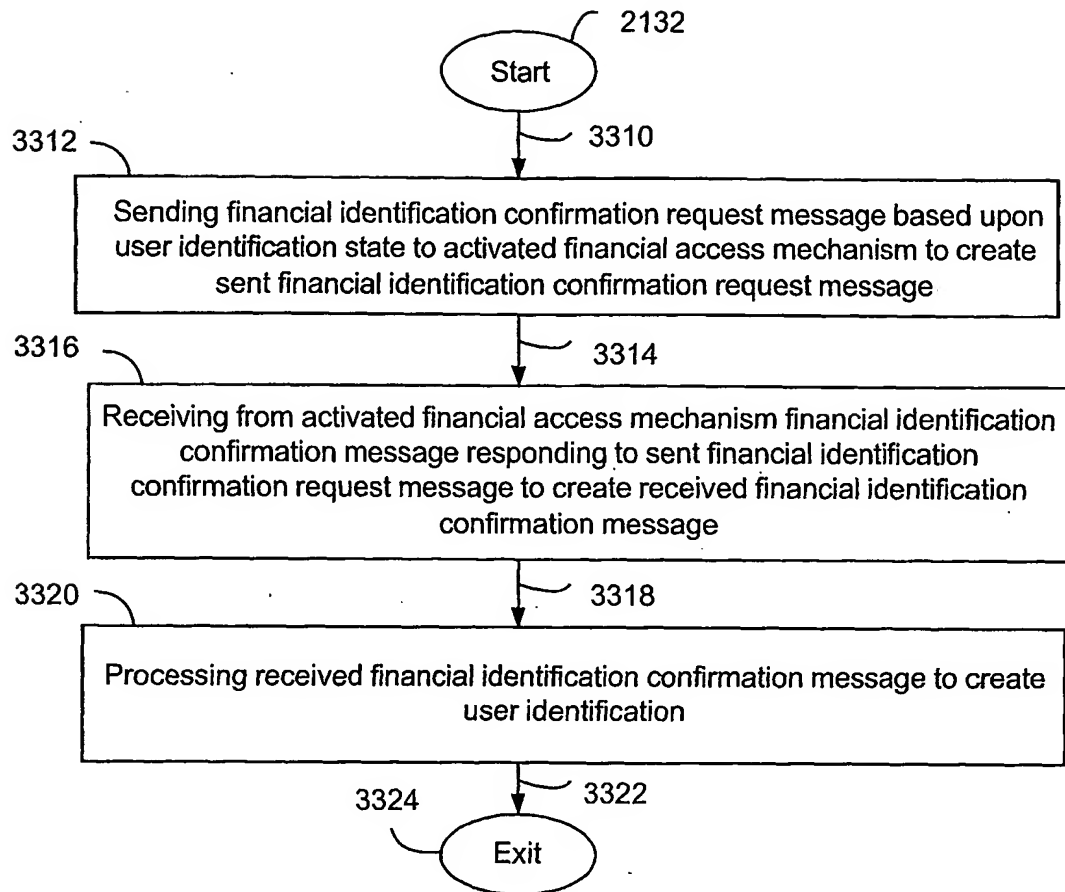


Fig. 40

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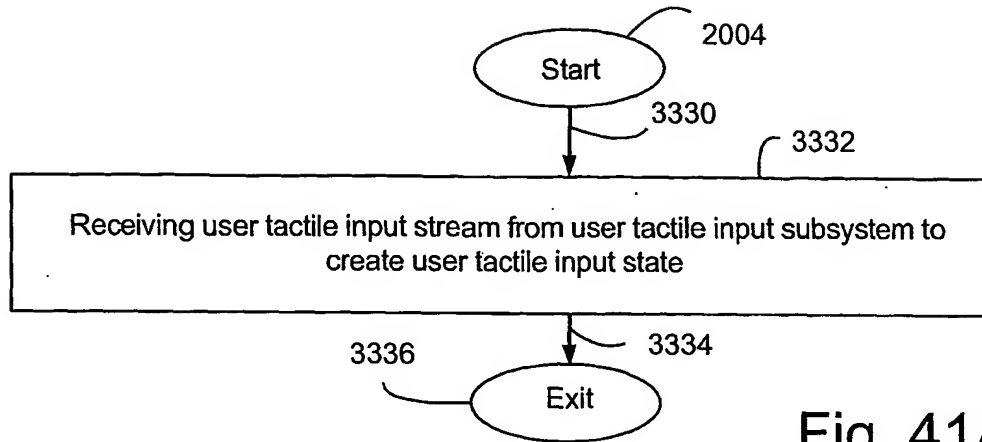


Fig. 41A

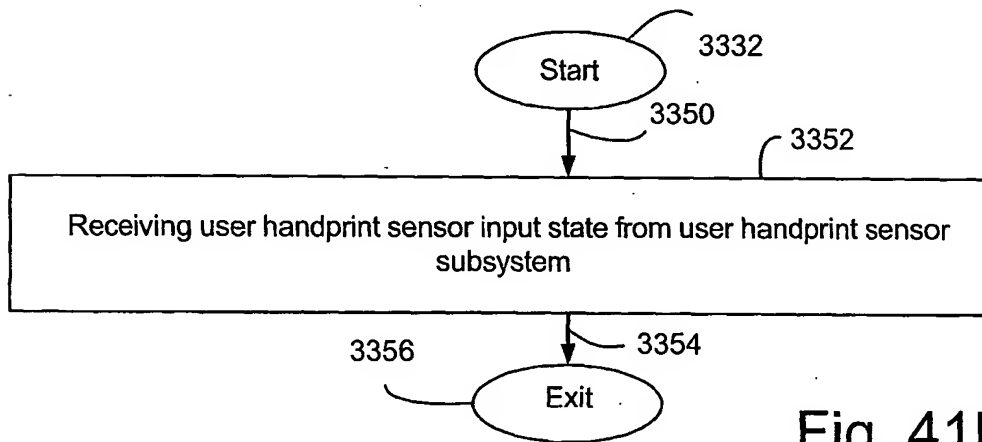


Fig. 41B

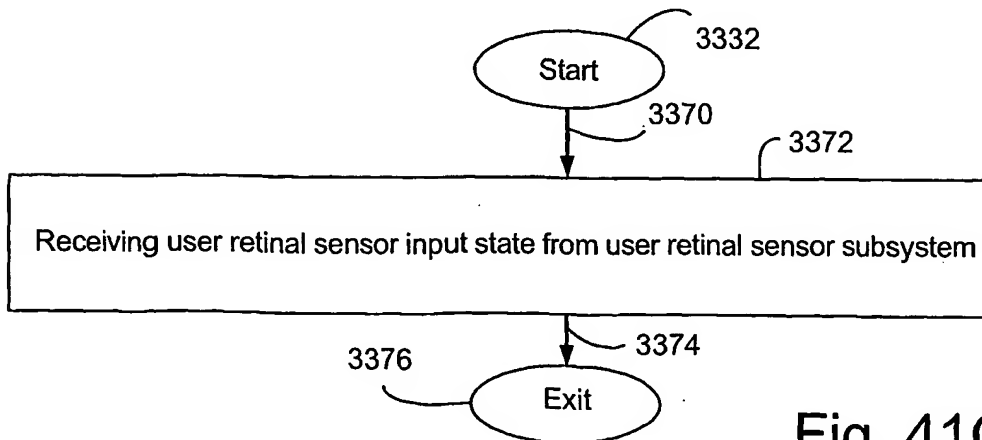


Fig. 41C

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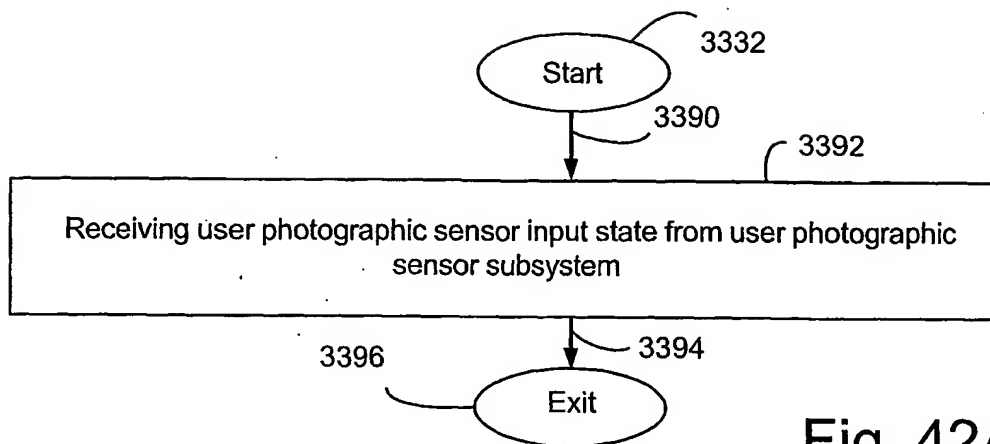


Fig. 42A

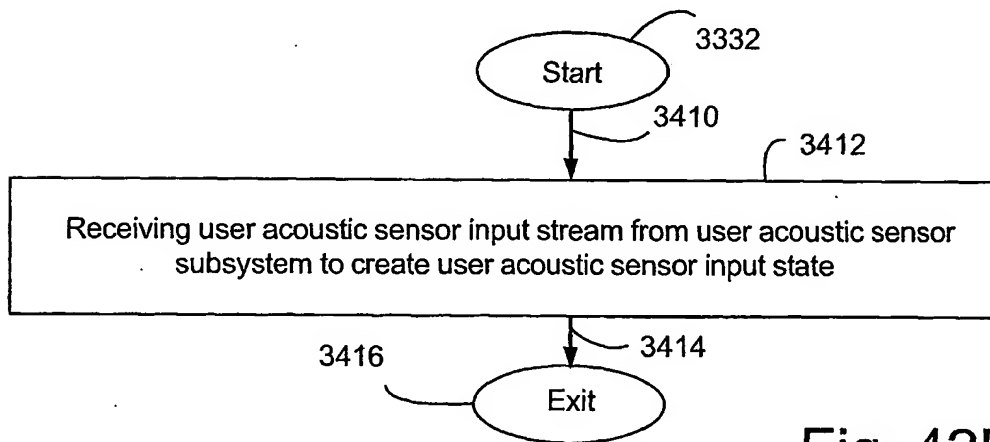


Fig. 42B

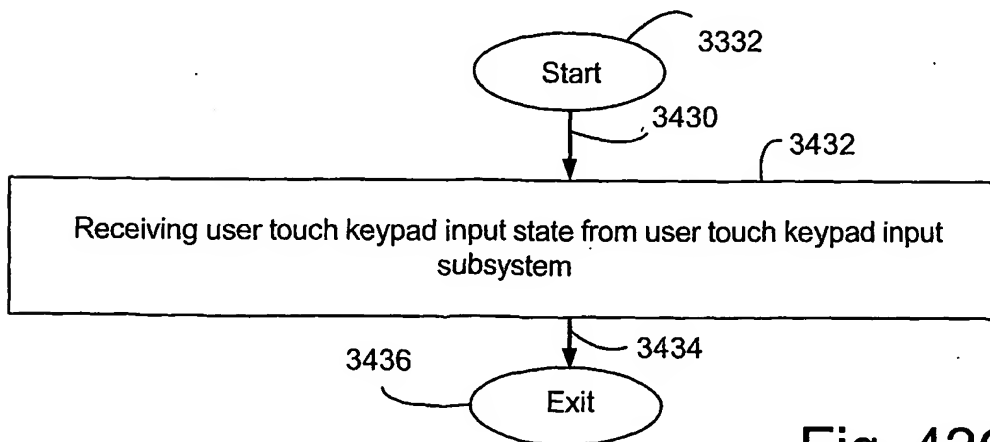


Fig. 42C

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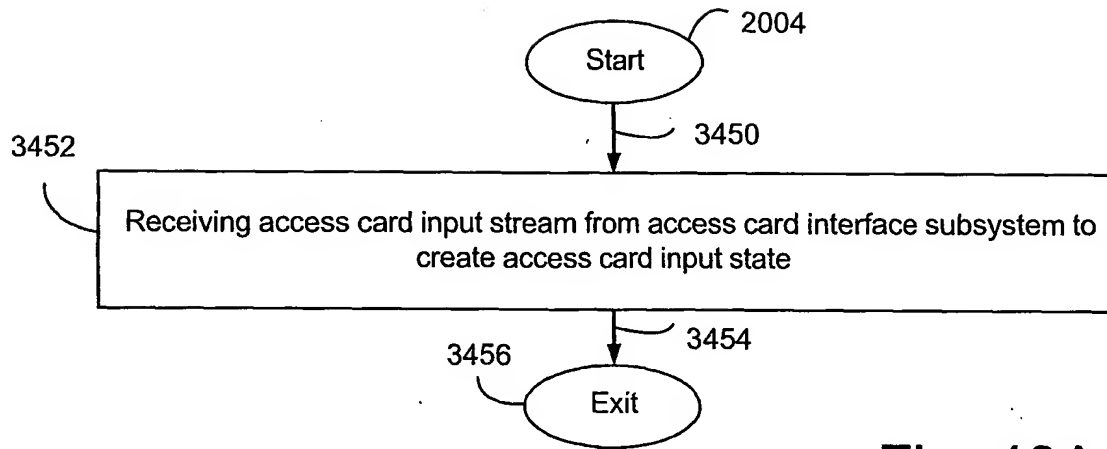


Fig. 43A

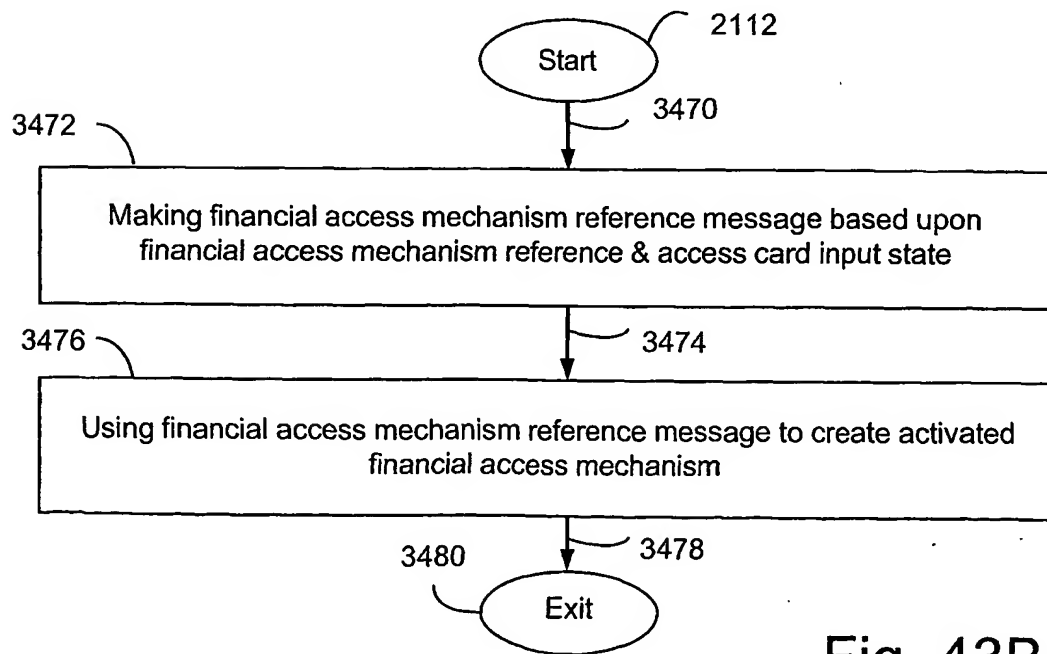


Fig. 43B

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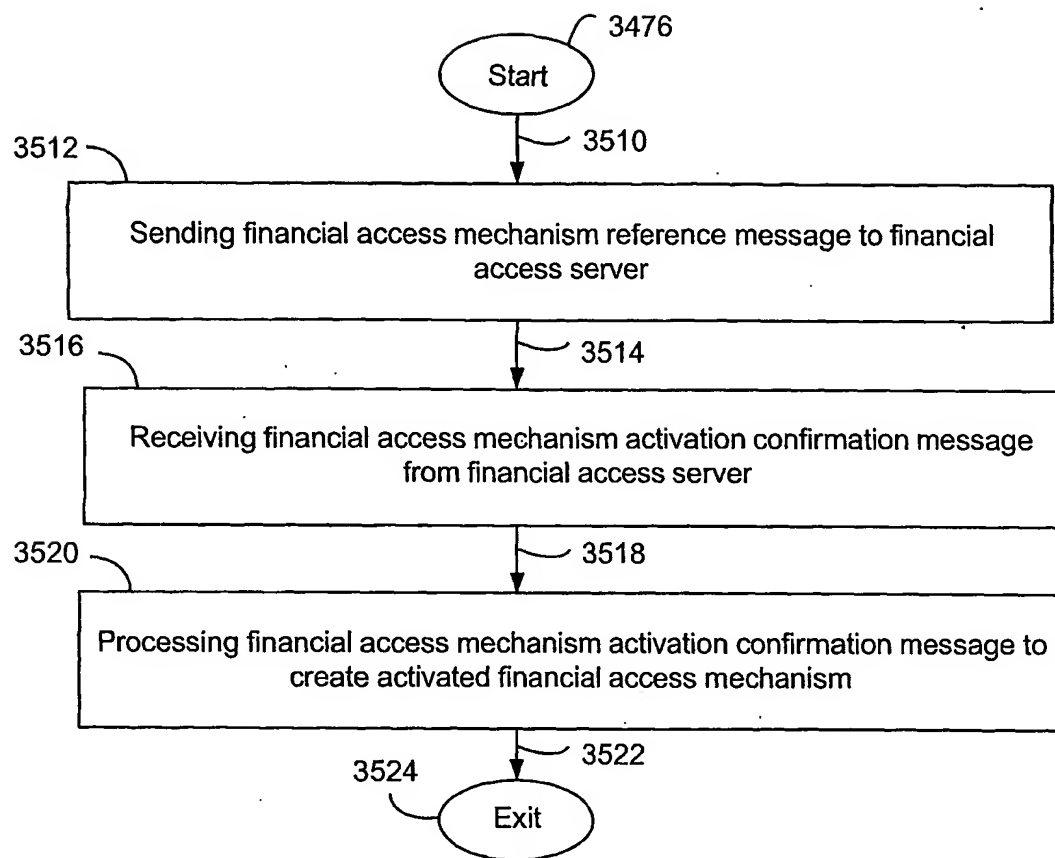


Fig. 44

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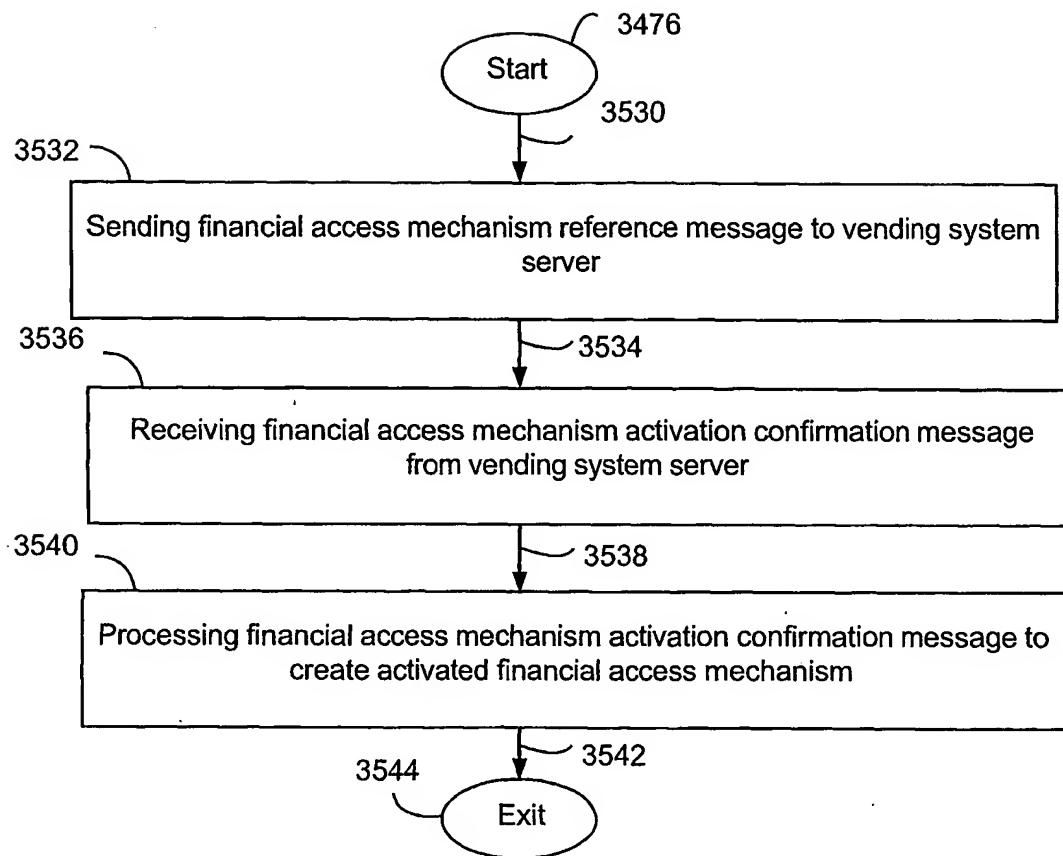


Fig. 45



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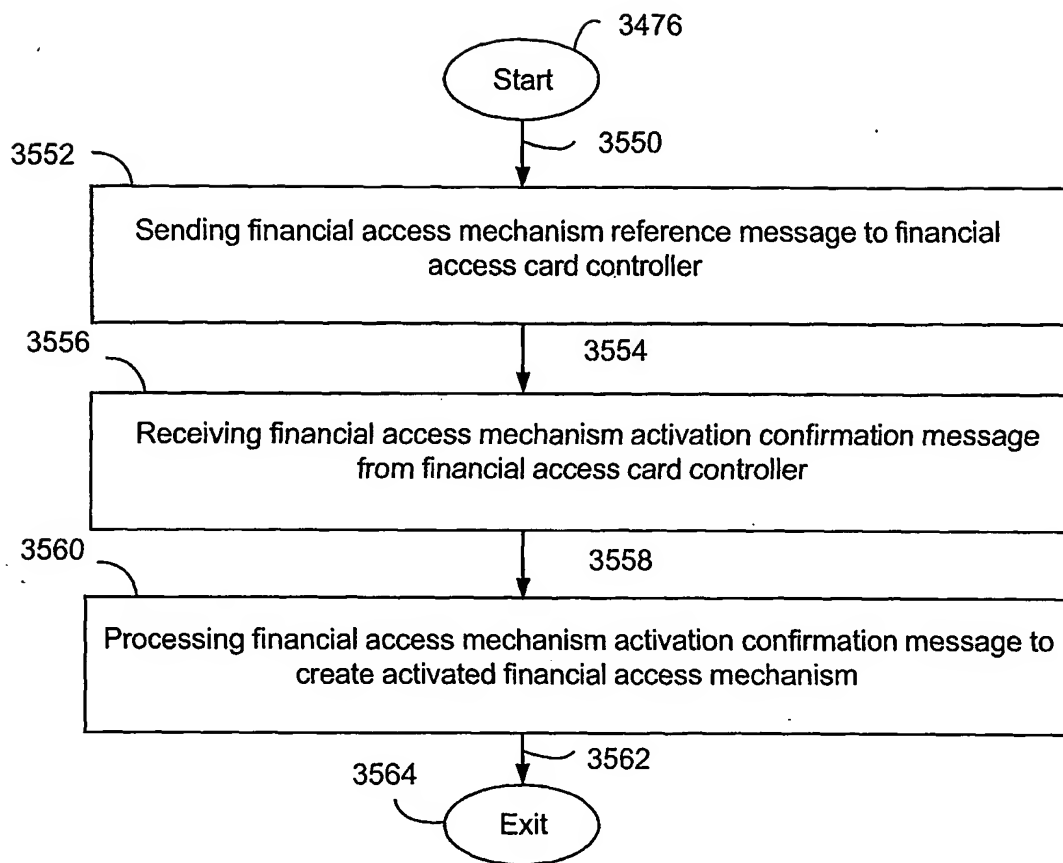


Fig. 46

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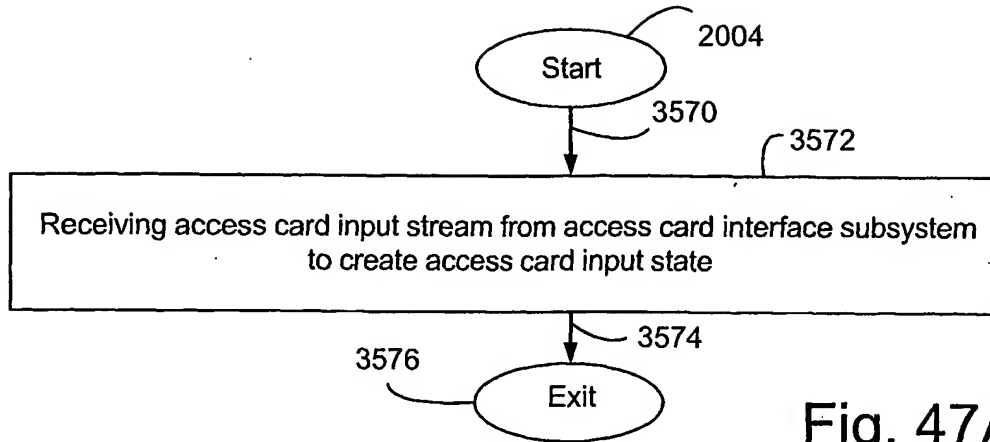


Fig. 47A

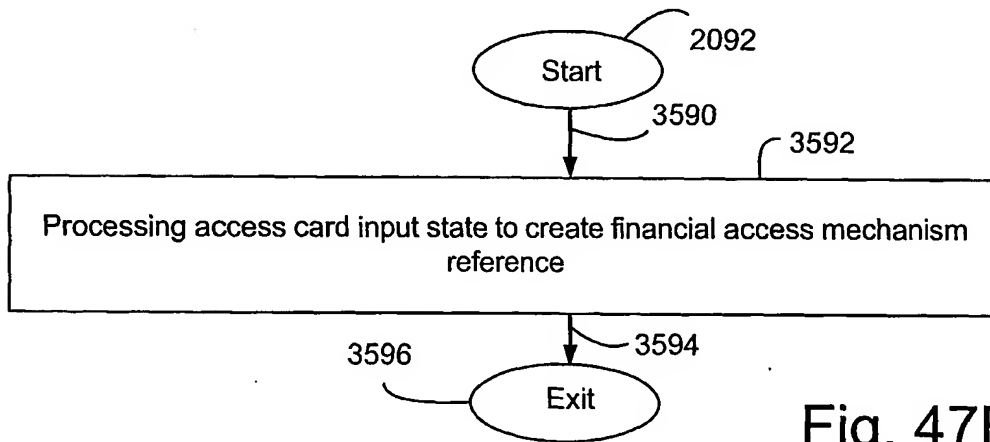


Fig. 47B

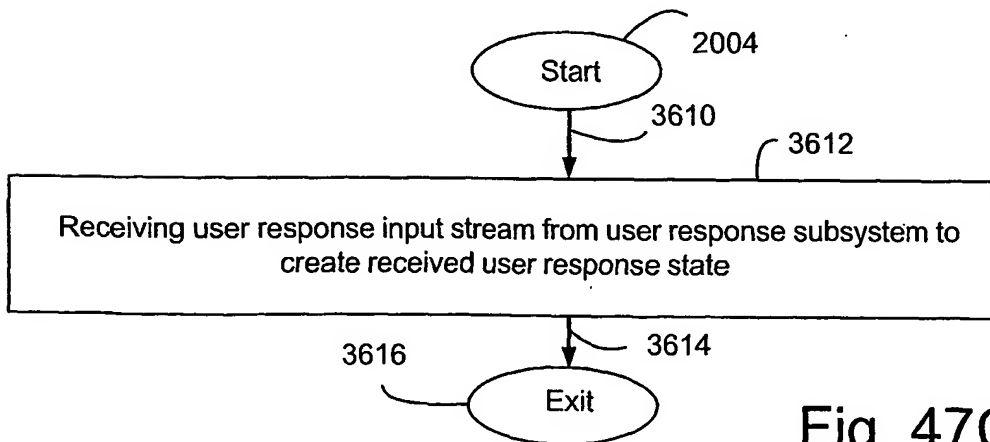


Fig. 47C

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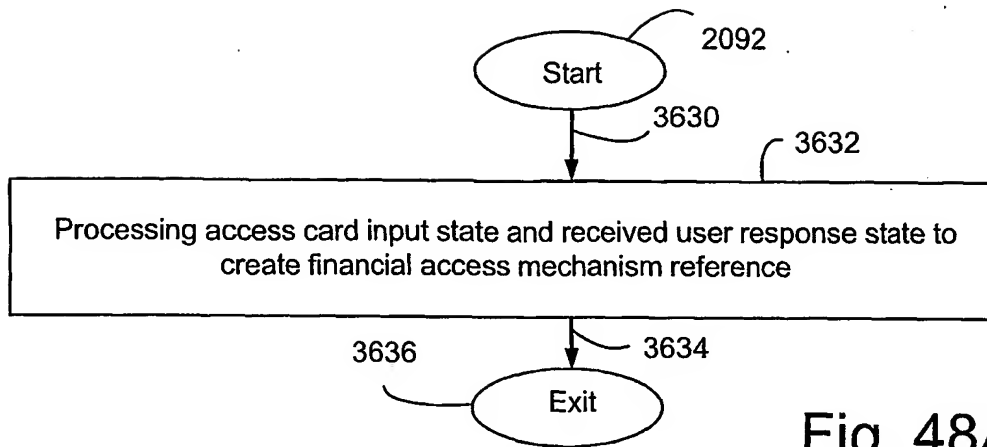


Fig. 48A

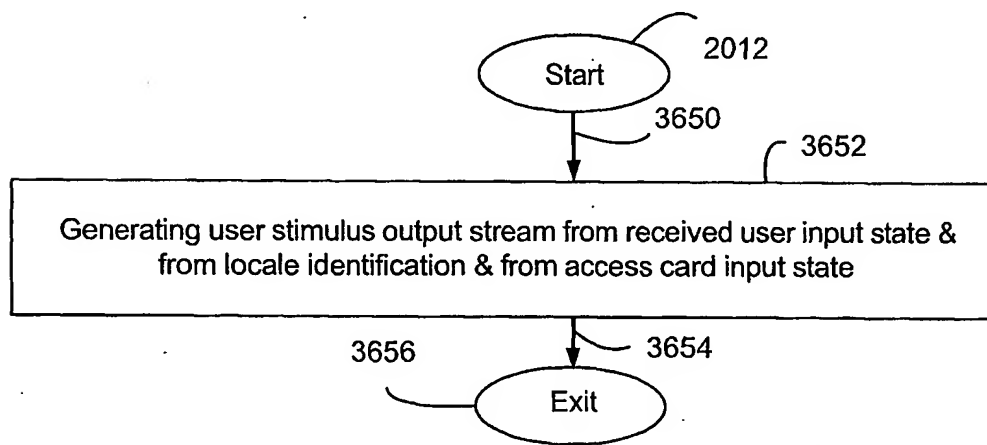


Fig. 48B

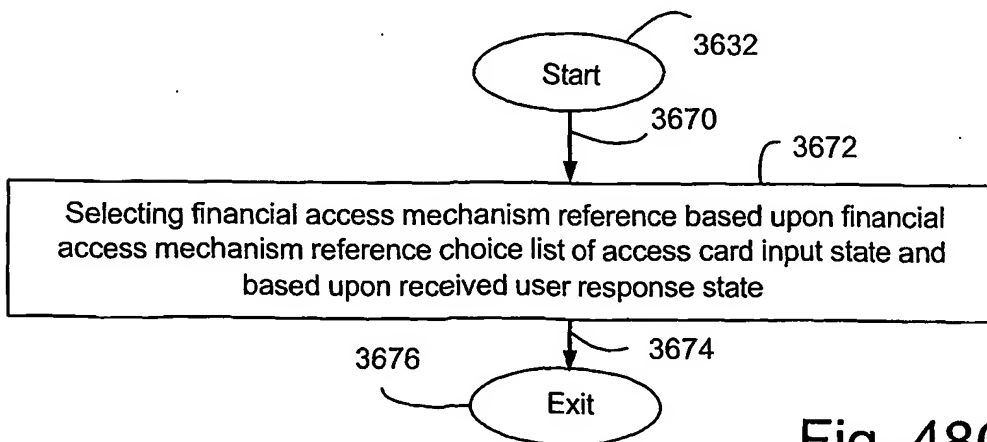


Fig. 48C

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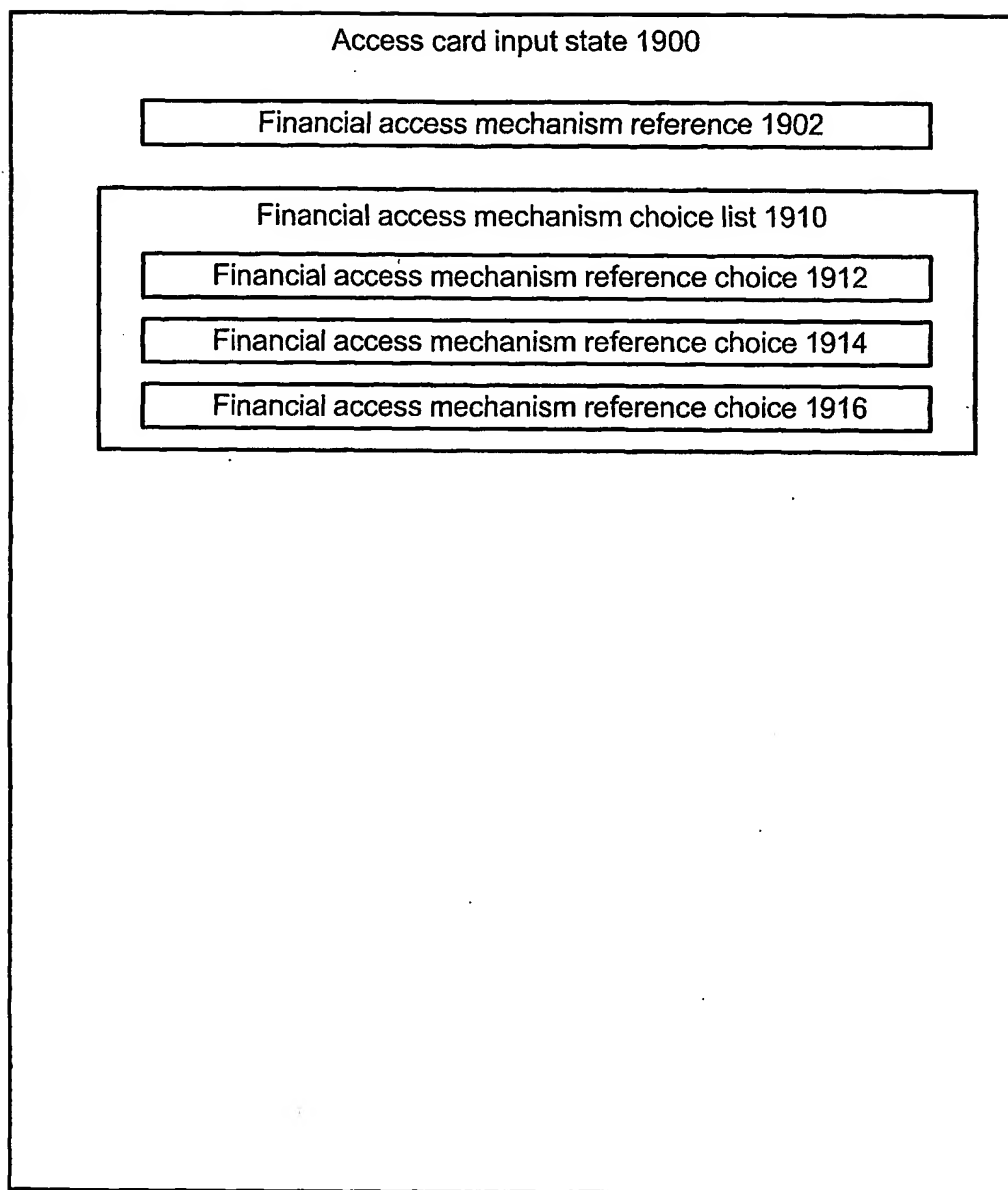


Fig. 49

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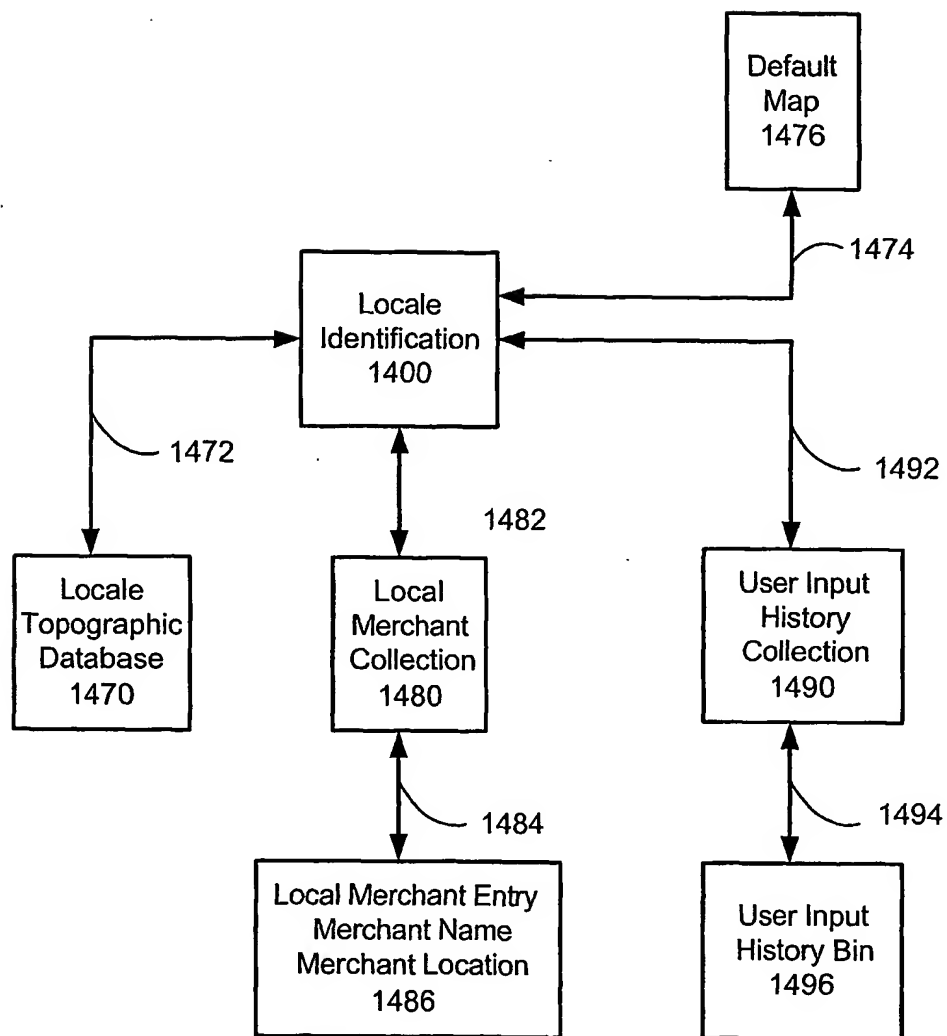


Fig. 50

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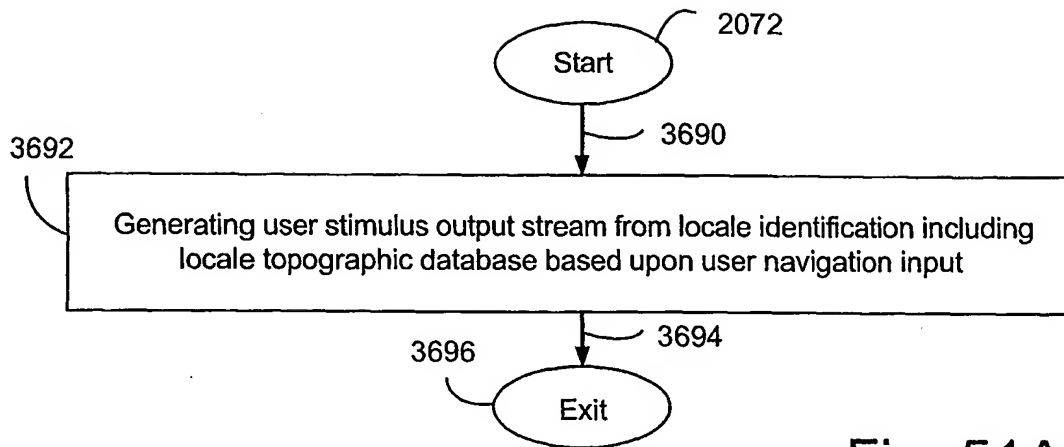


Fig. 51A

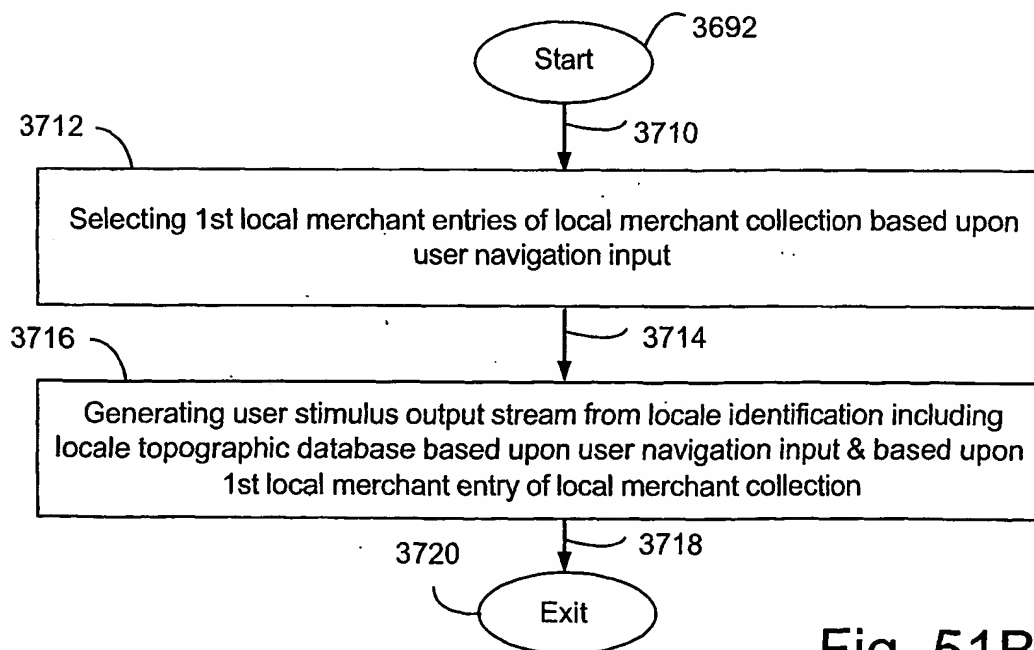


Fig. 51B

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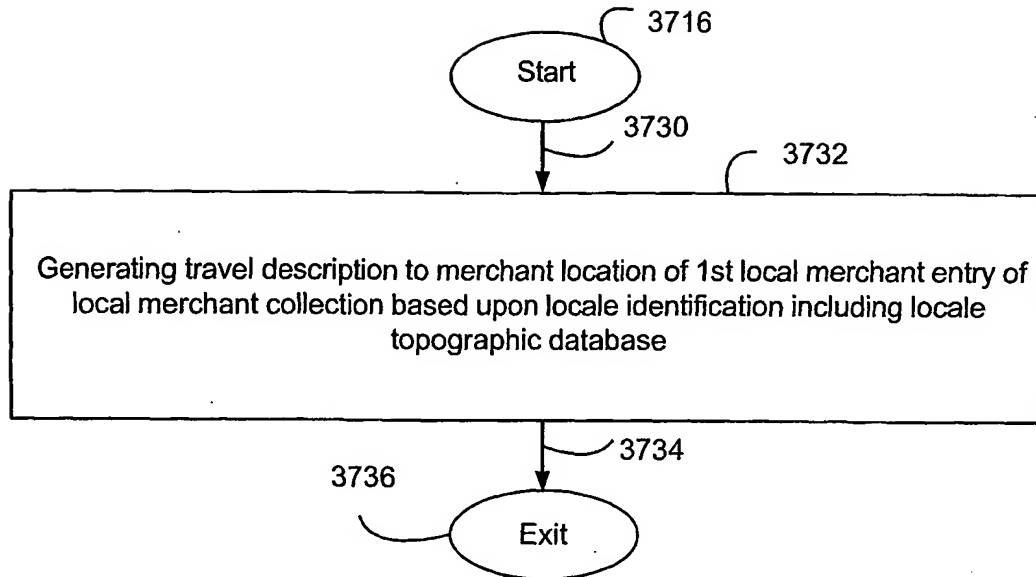


Fig. 52A

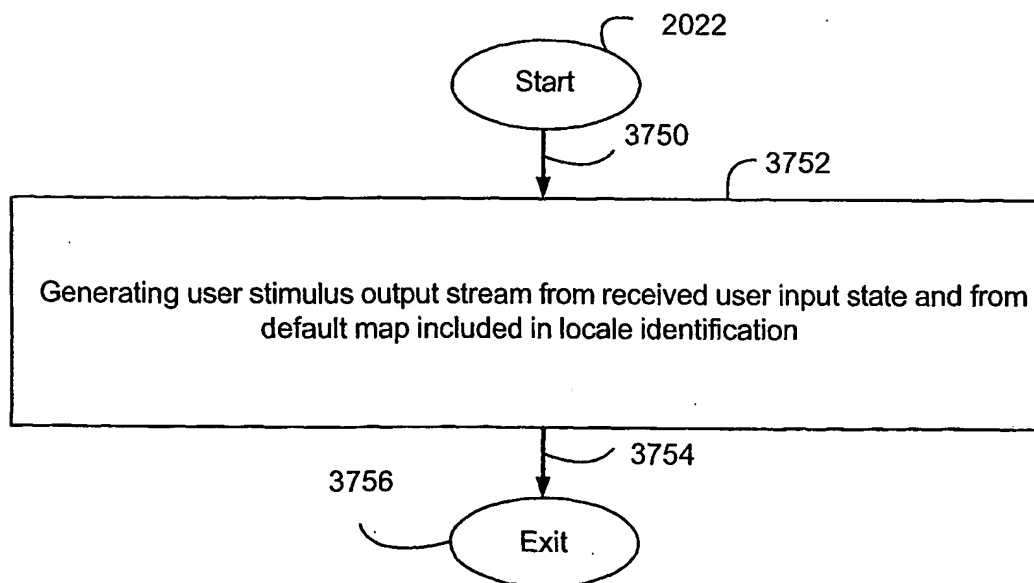


Fig. 52B

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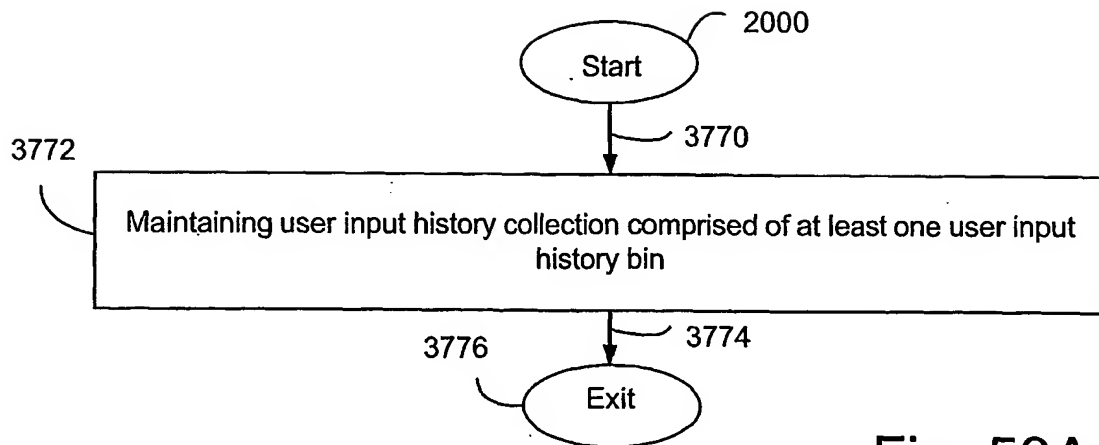


Fig. 53A

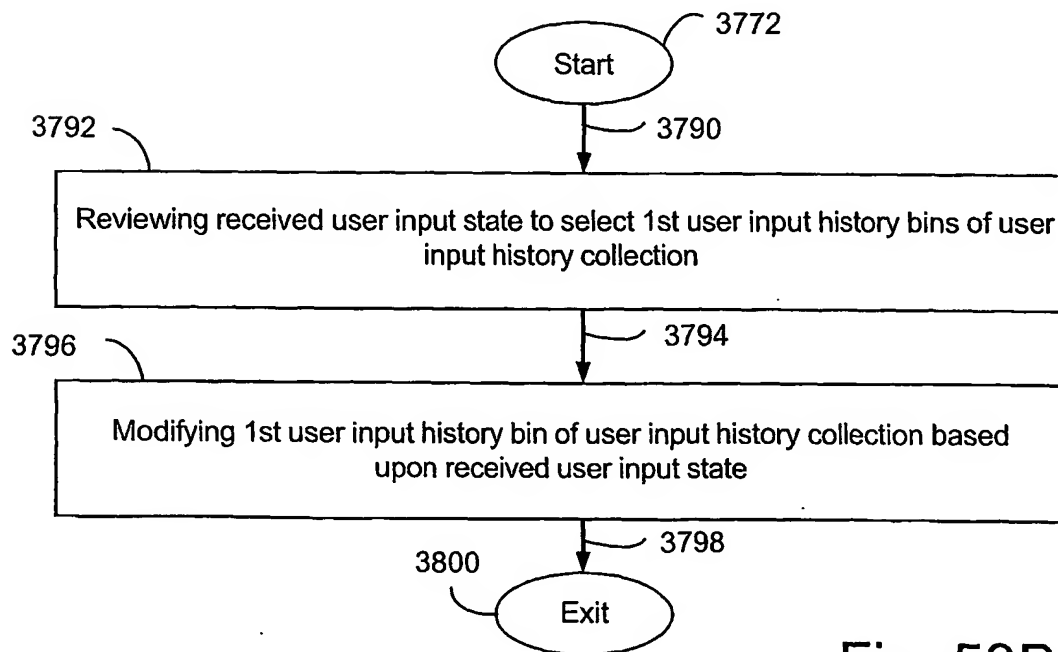


Fig. 53B



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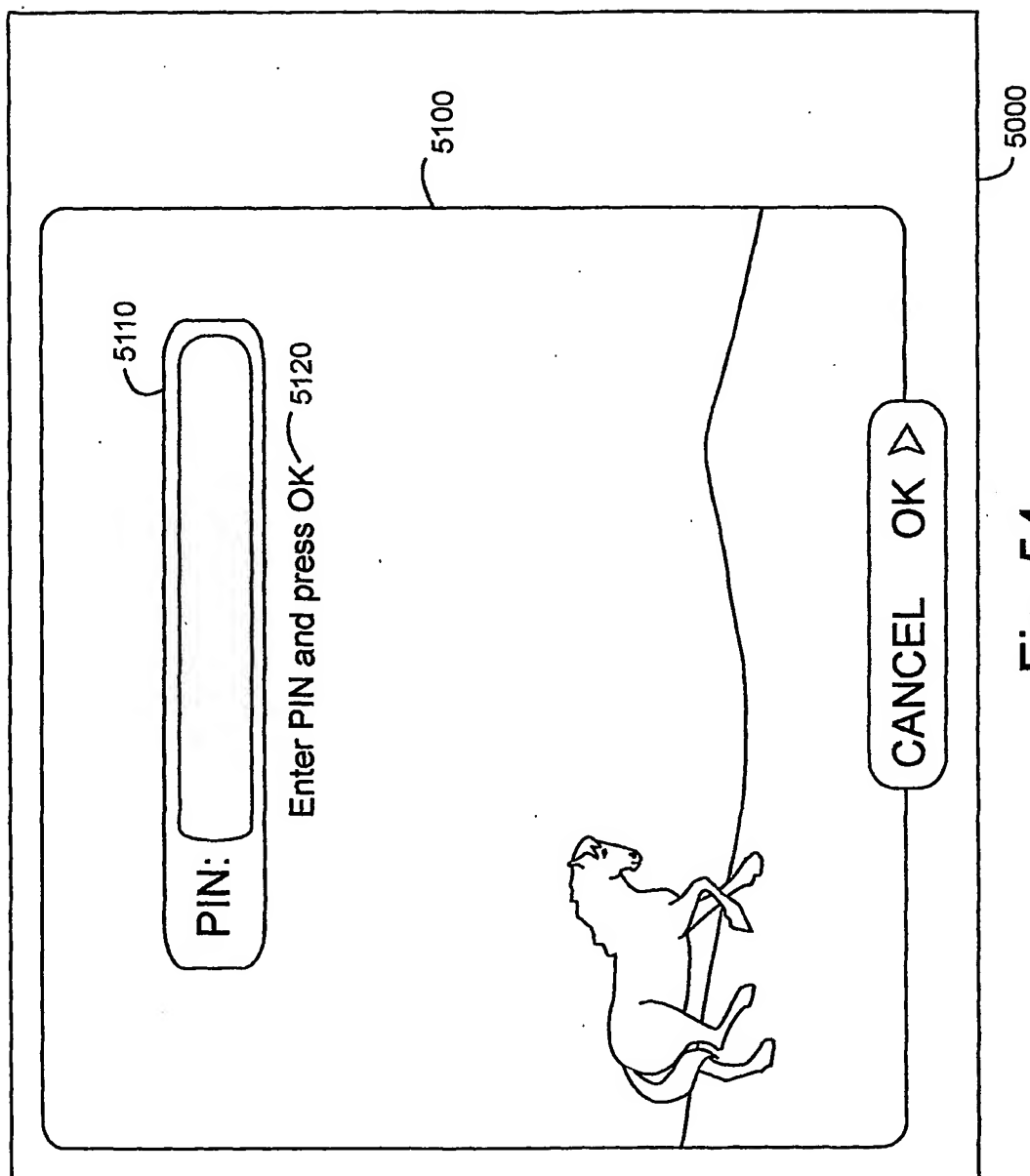


Fig. 54

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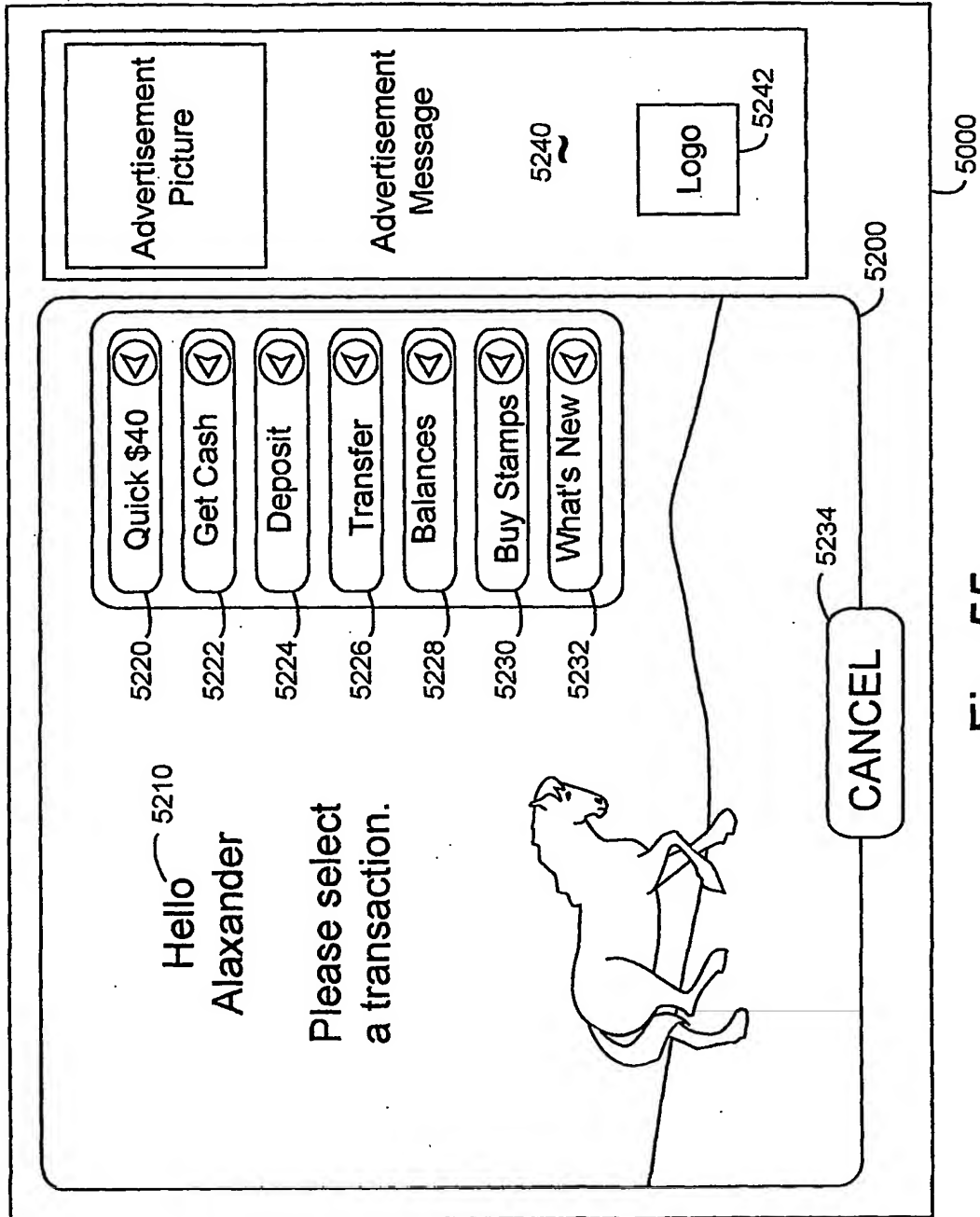


Fig. 55

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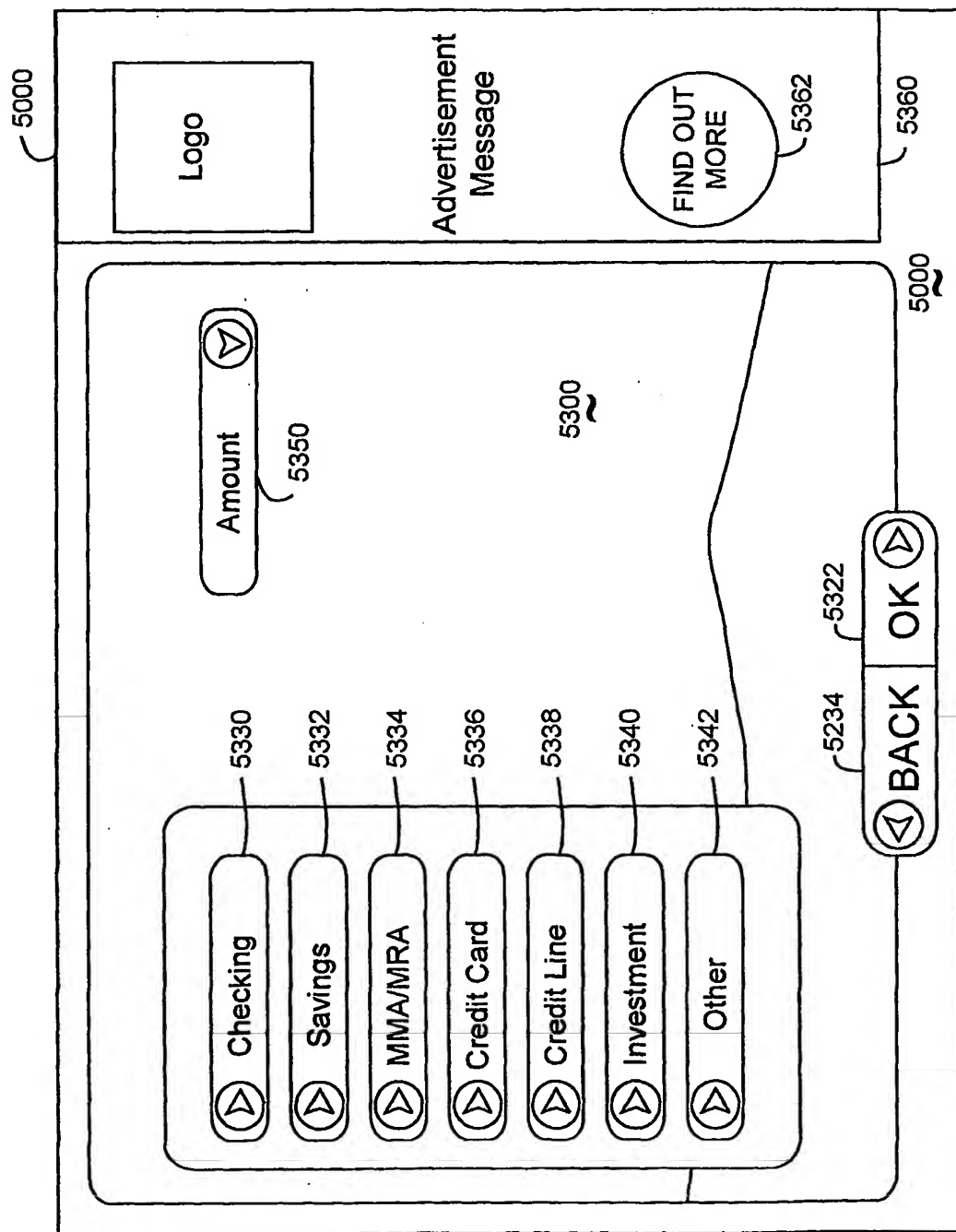


Fig. 56

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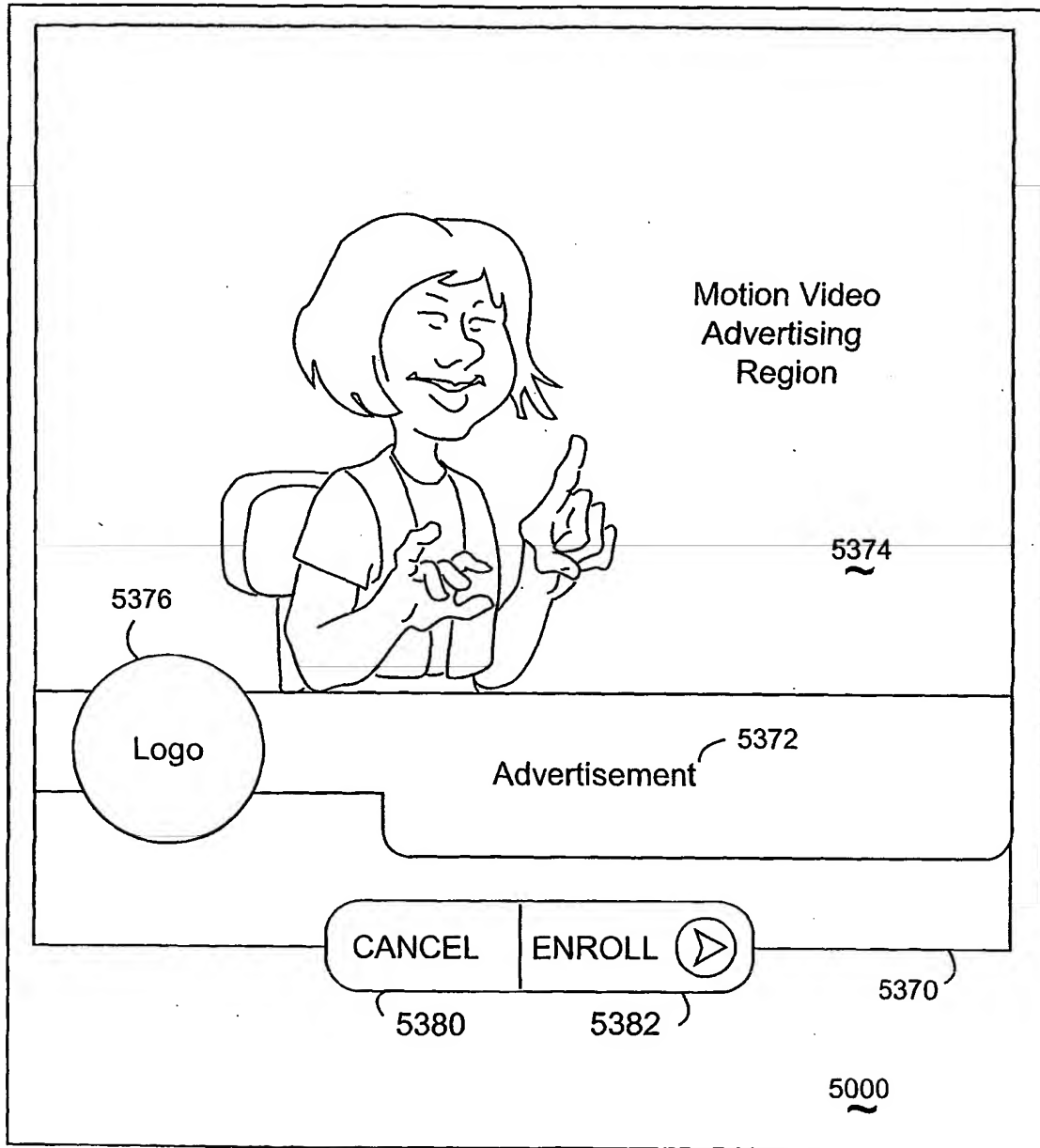


Fig. 57

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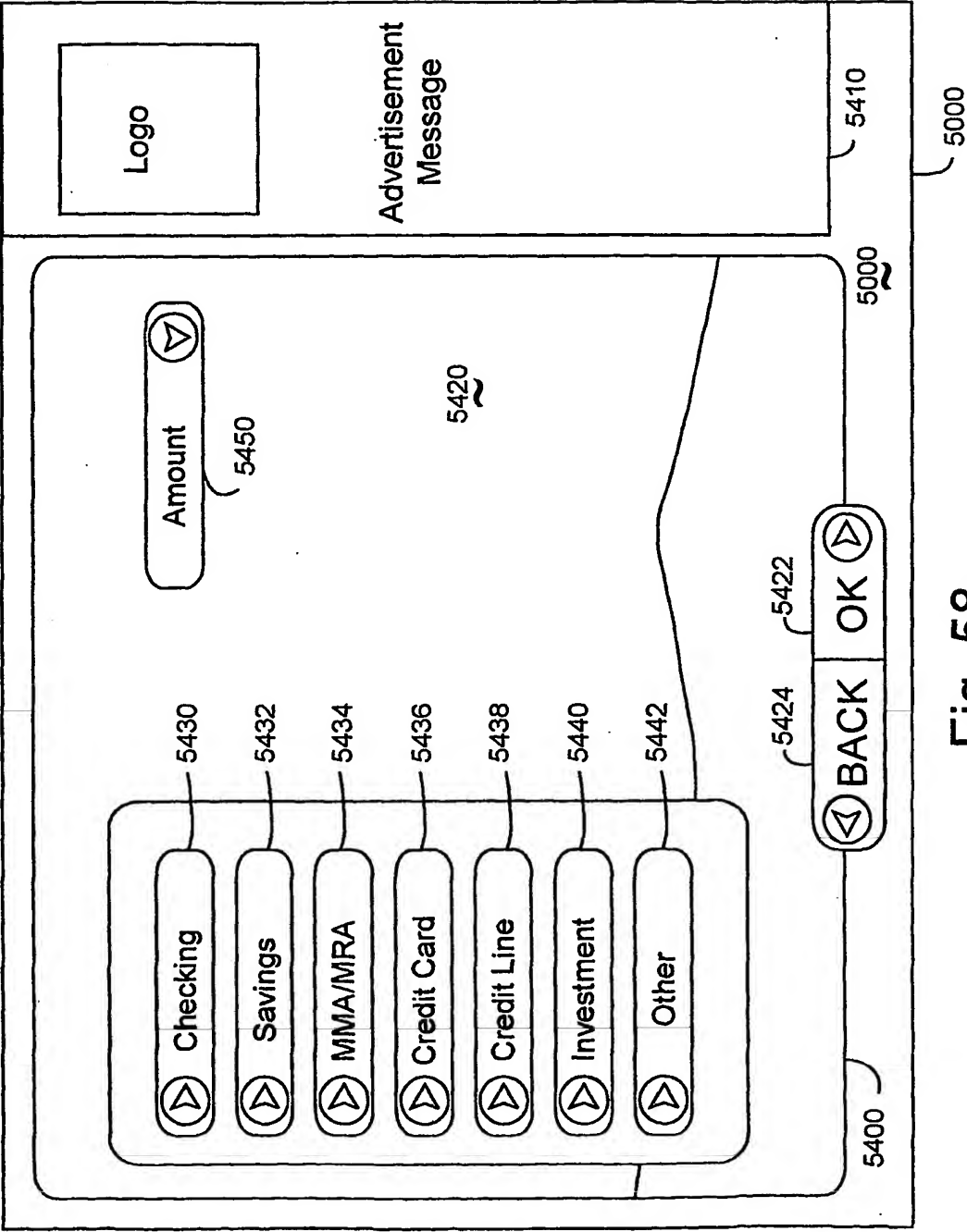


Fig. 58

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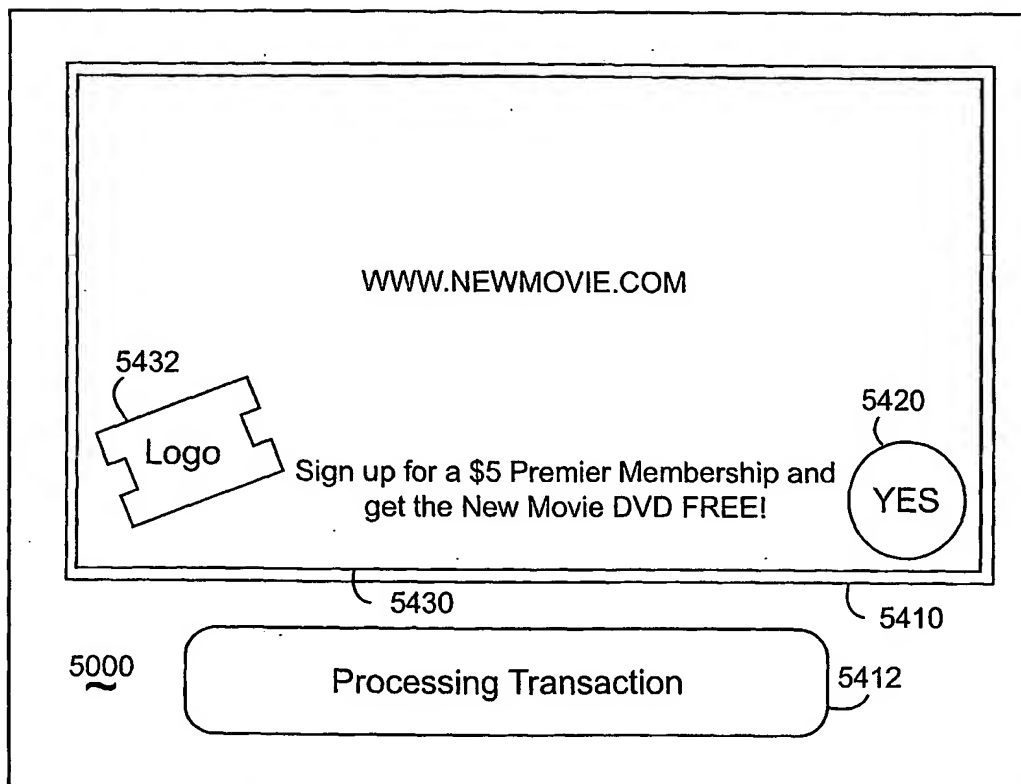


Fig. 59

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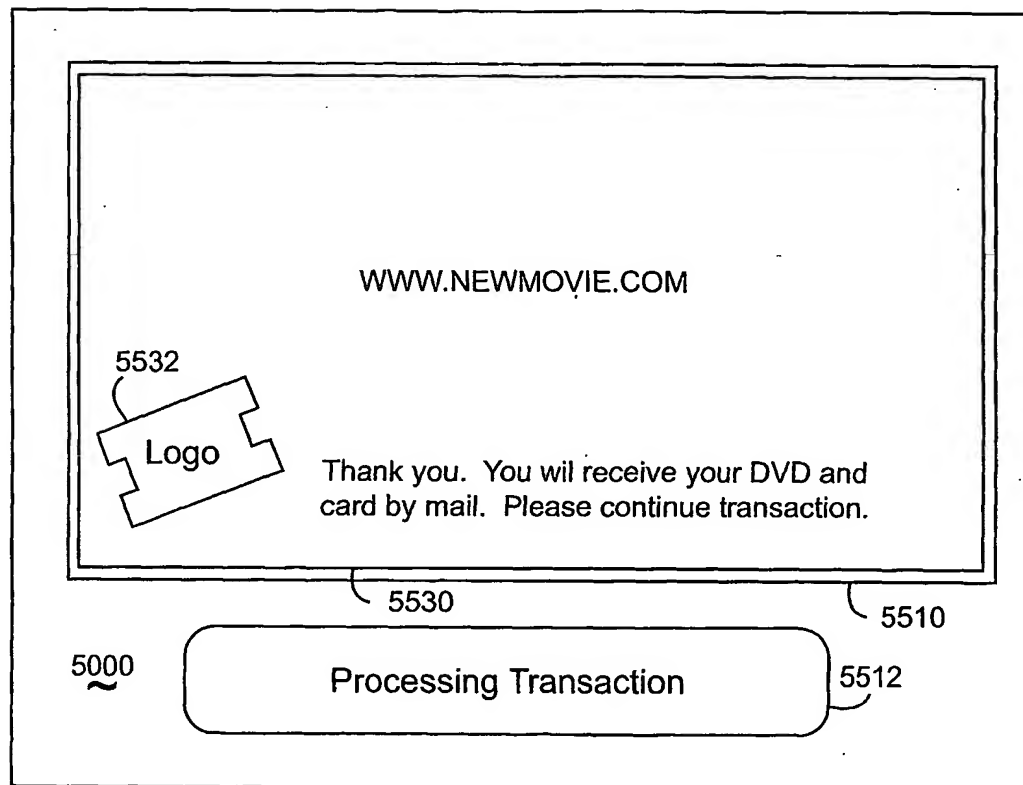


Fig. 60

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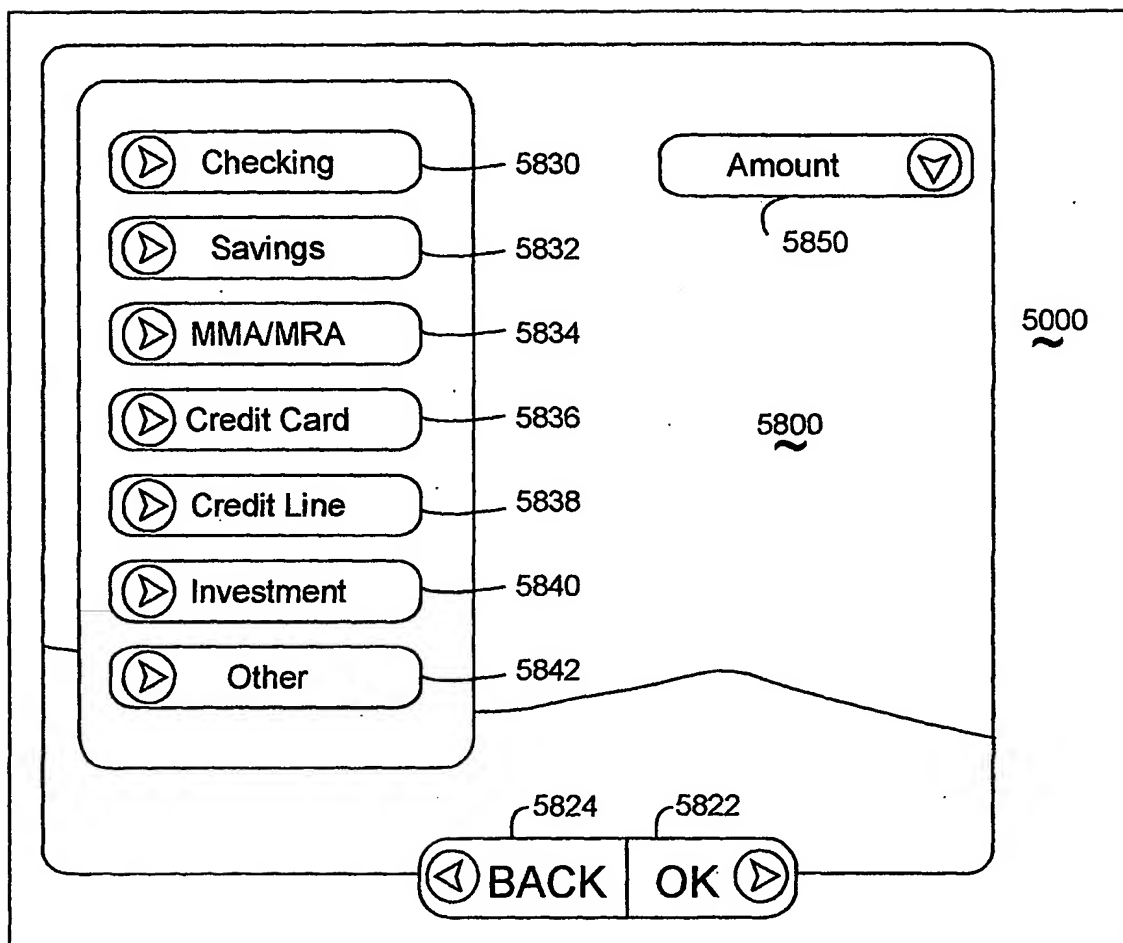


Fig. 61



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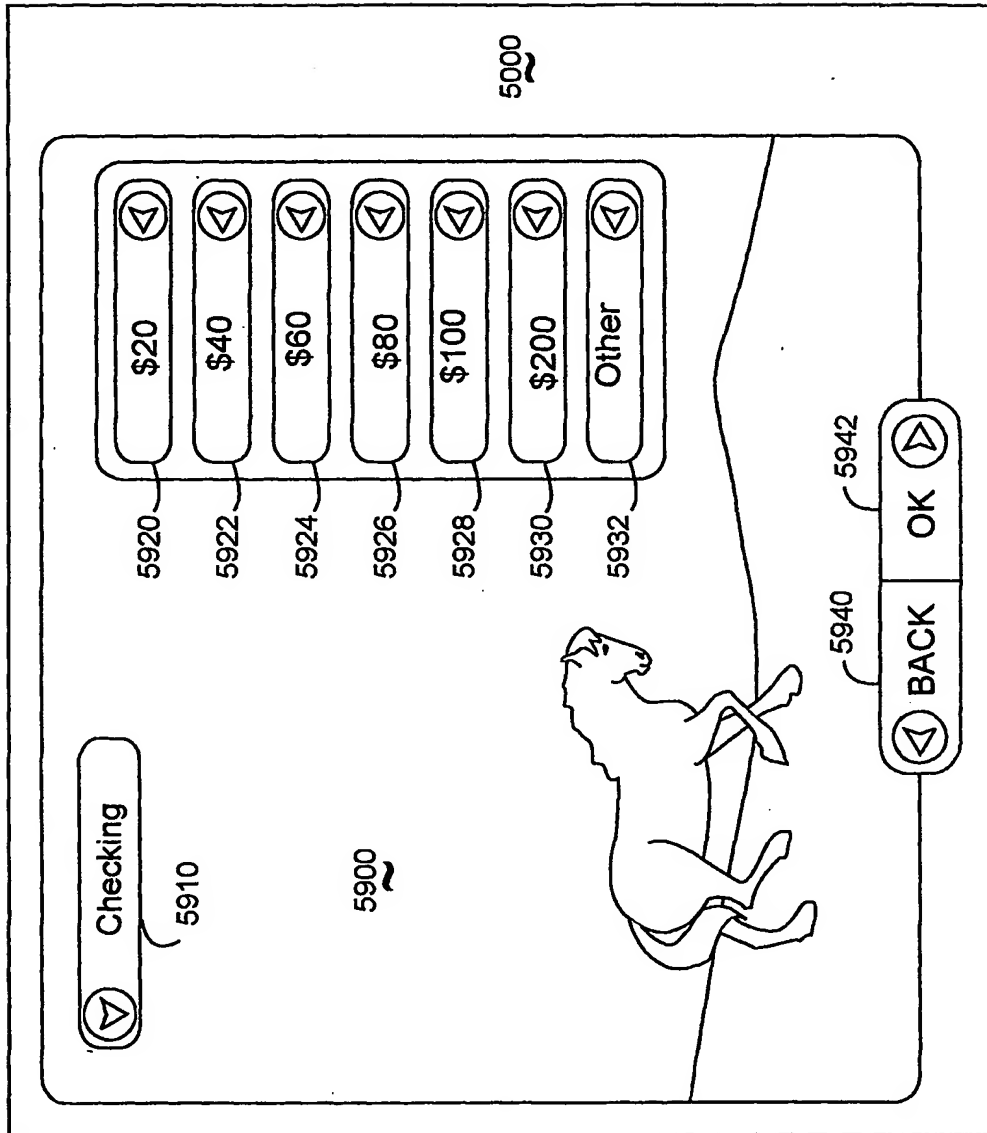


Fig. 62

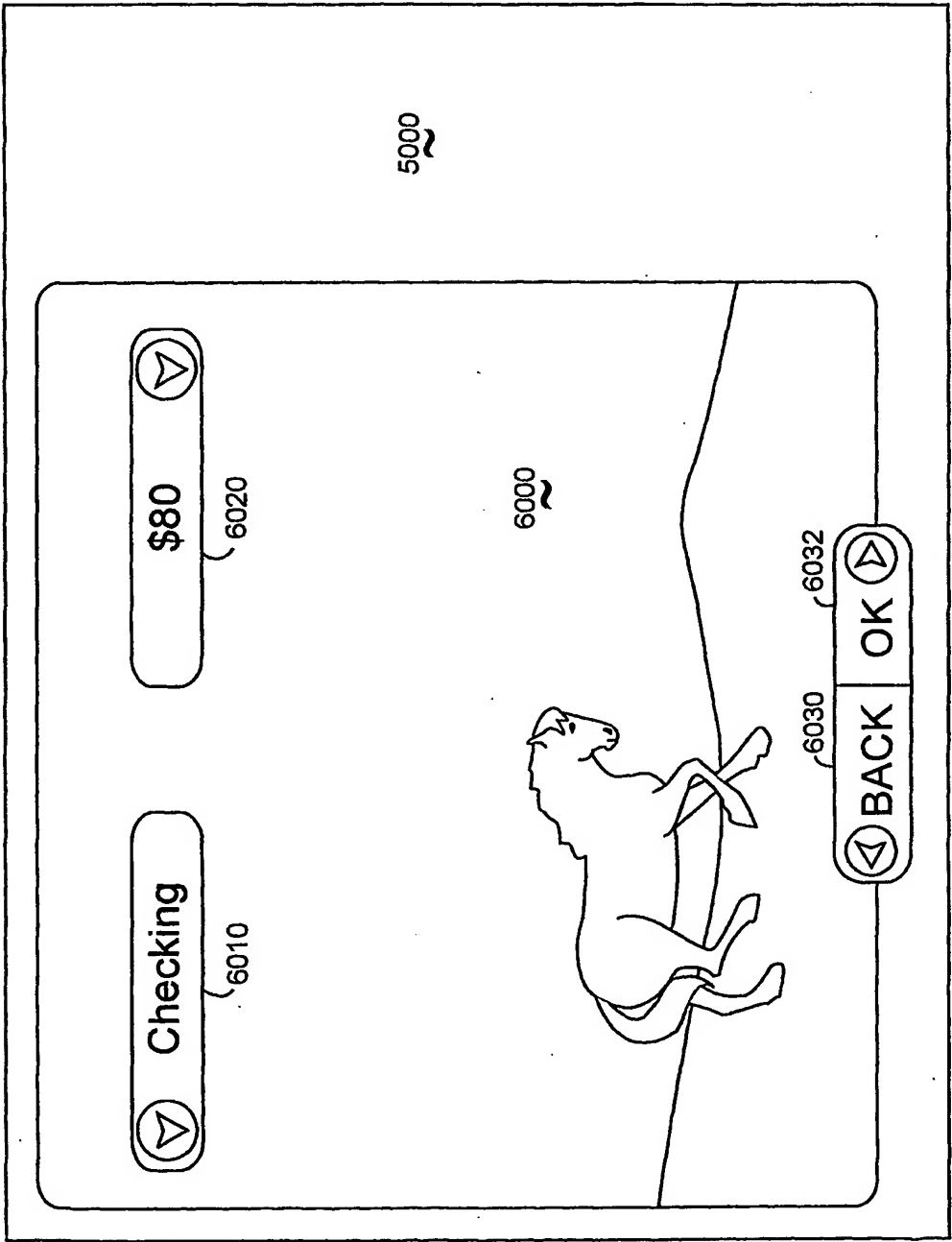


Fig. 63

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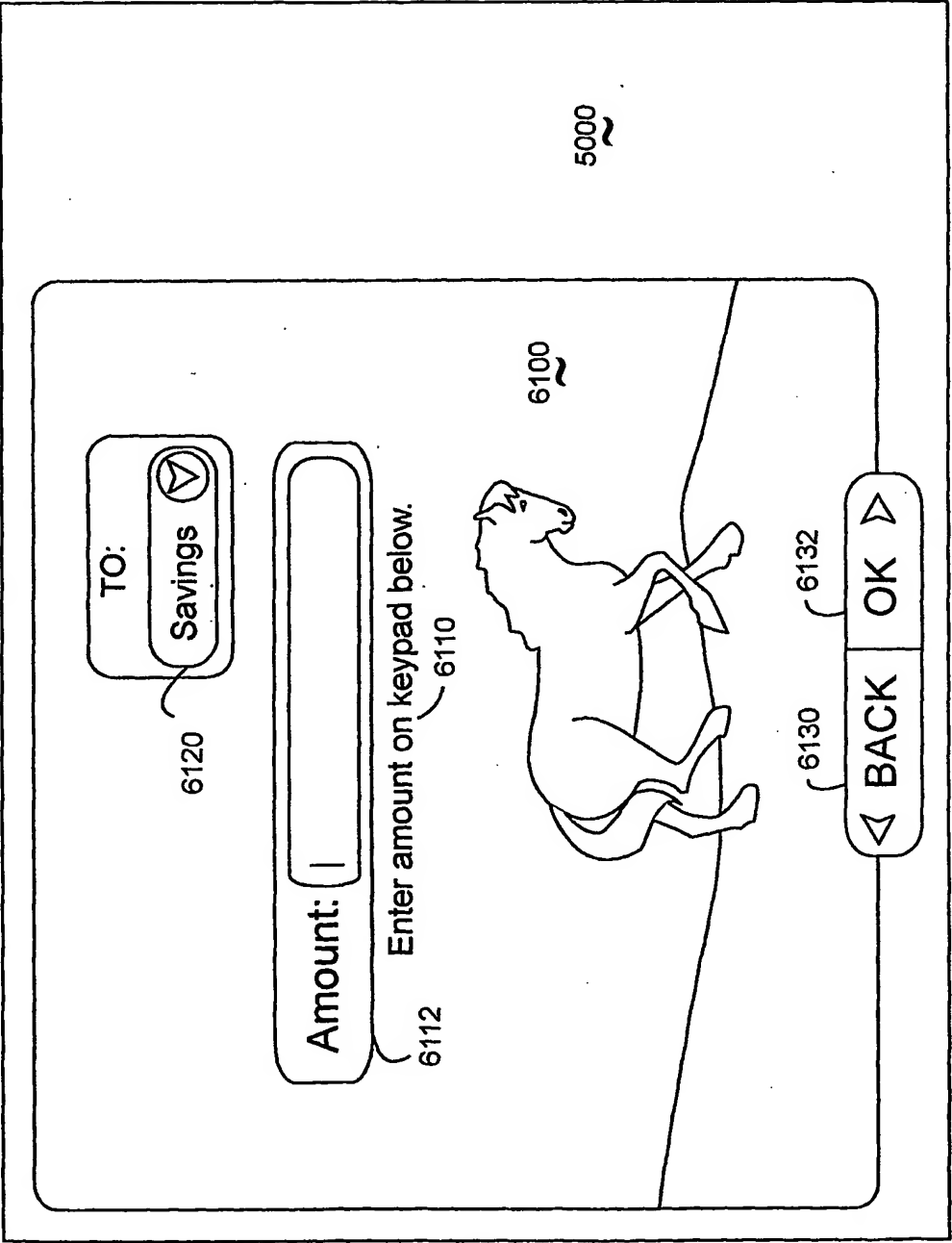


Fig. 64

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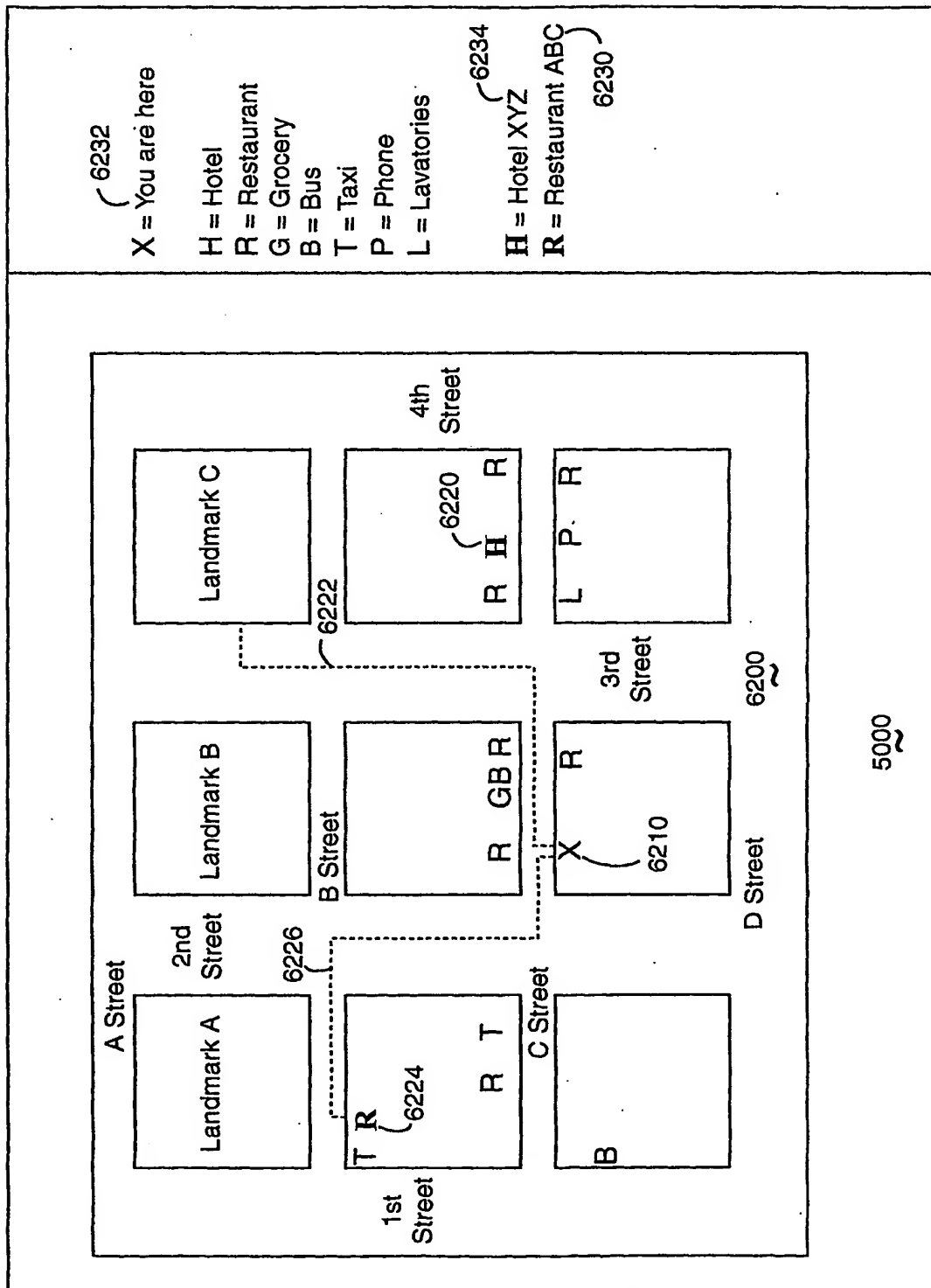


Fig. 65

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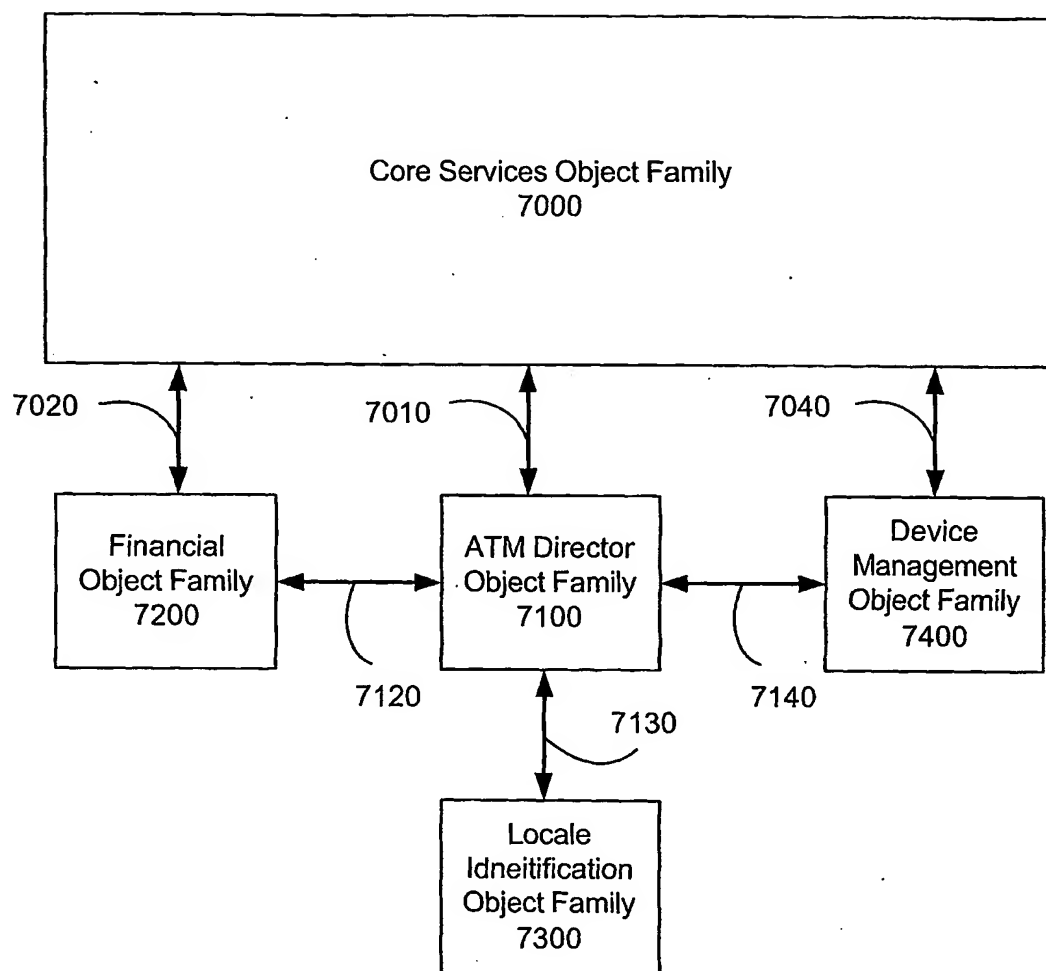


Fig. 66

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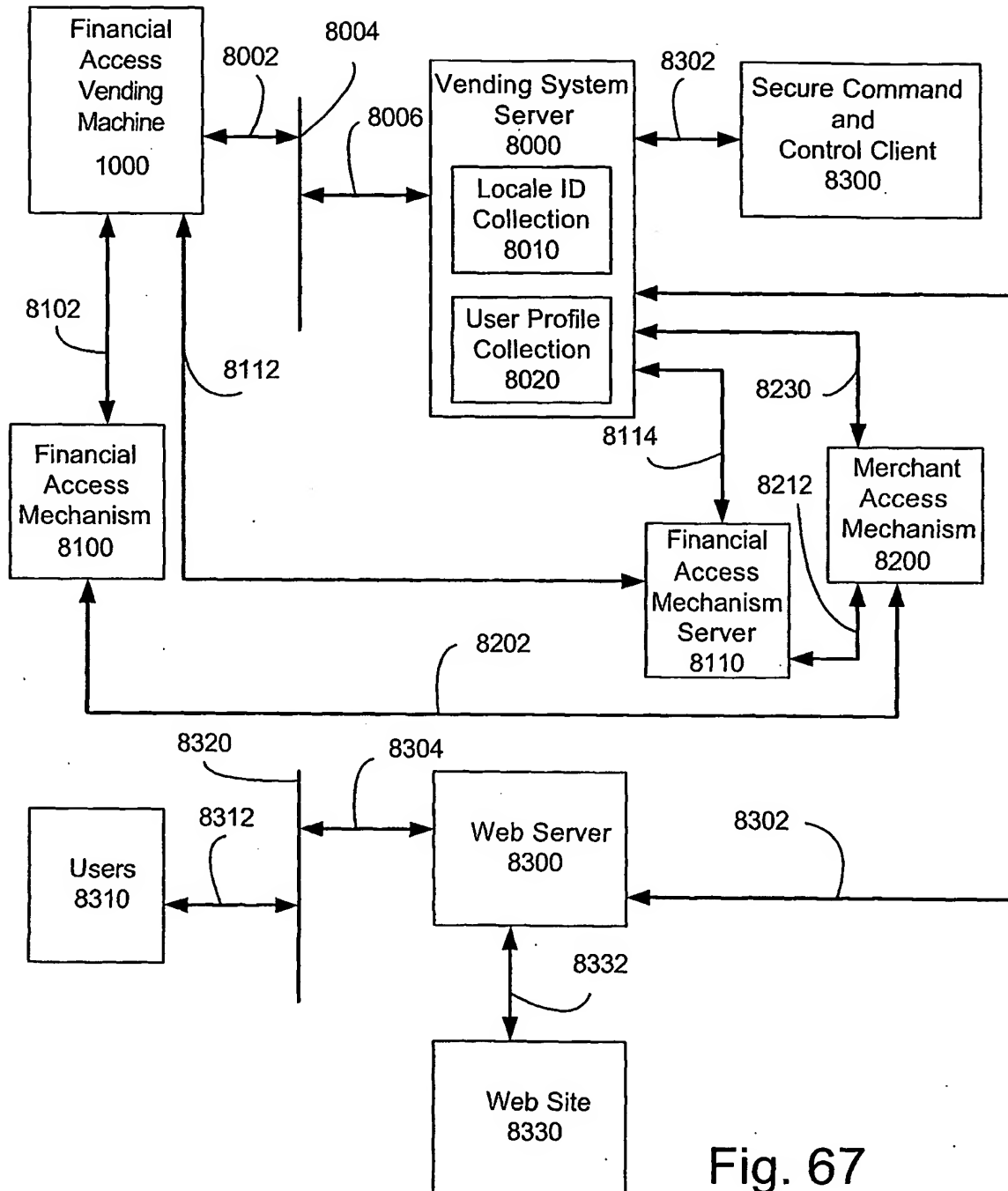


Fig. 67

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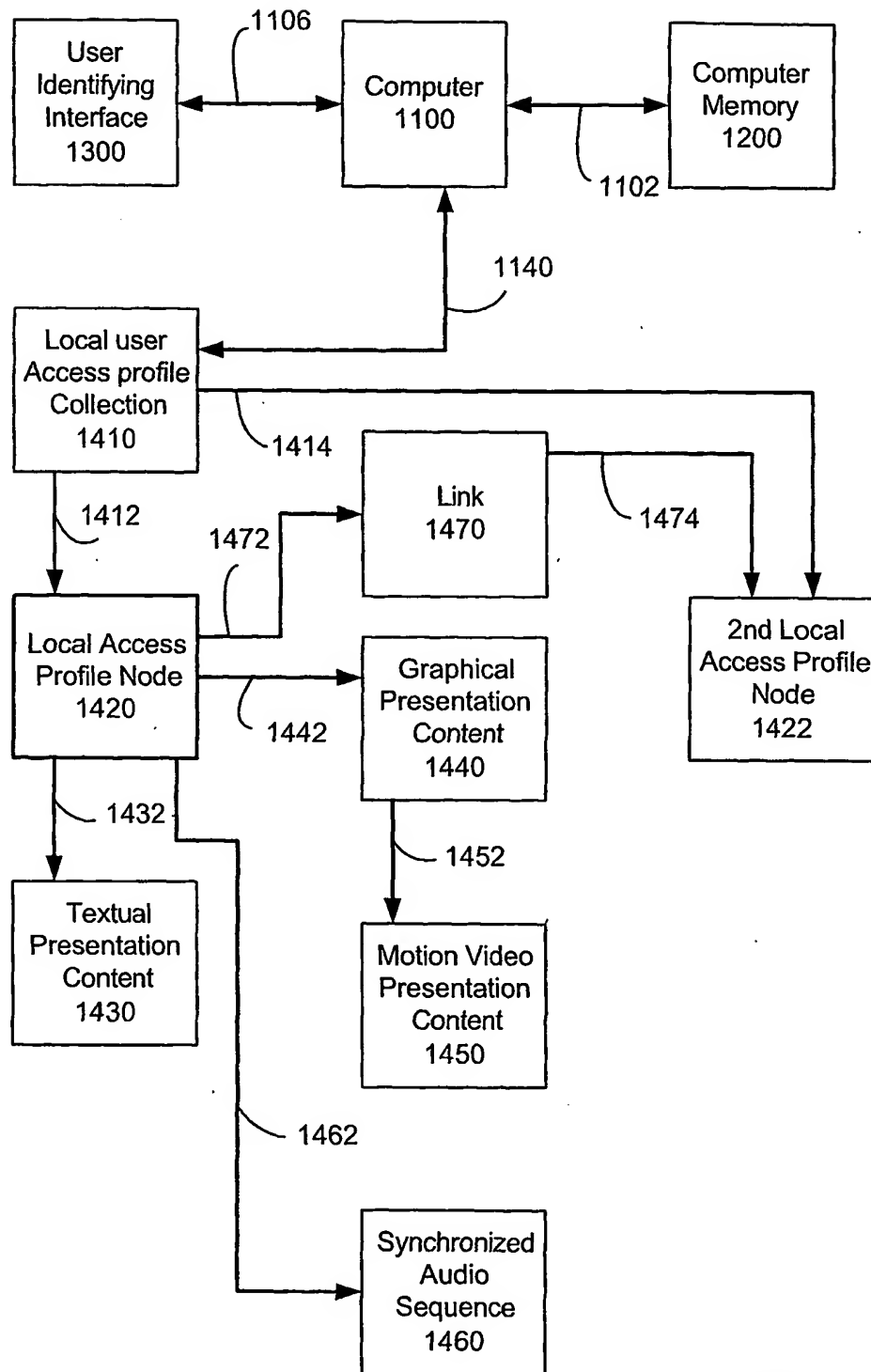


Fig. 68

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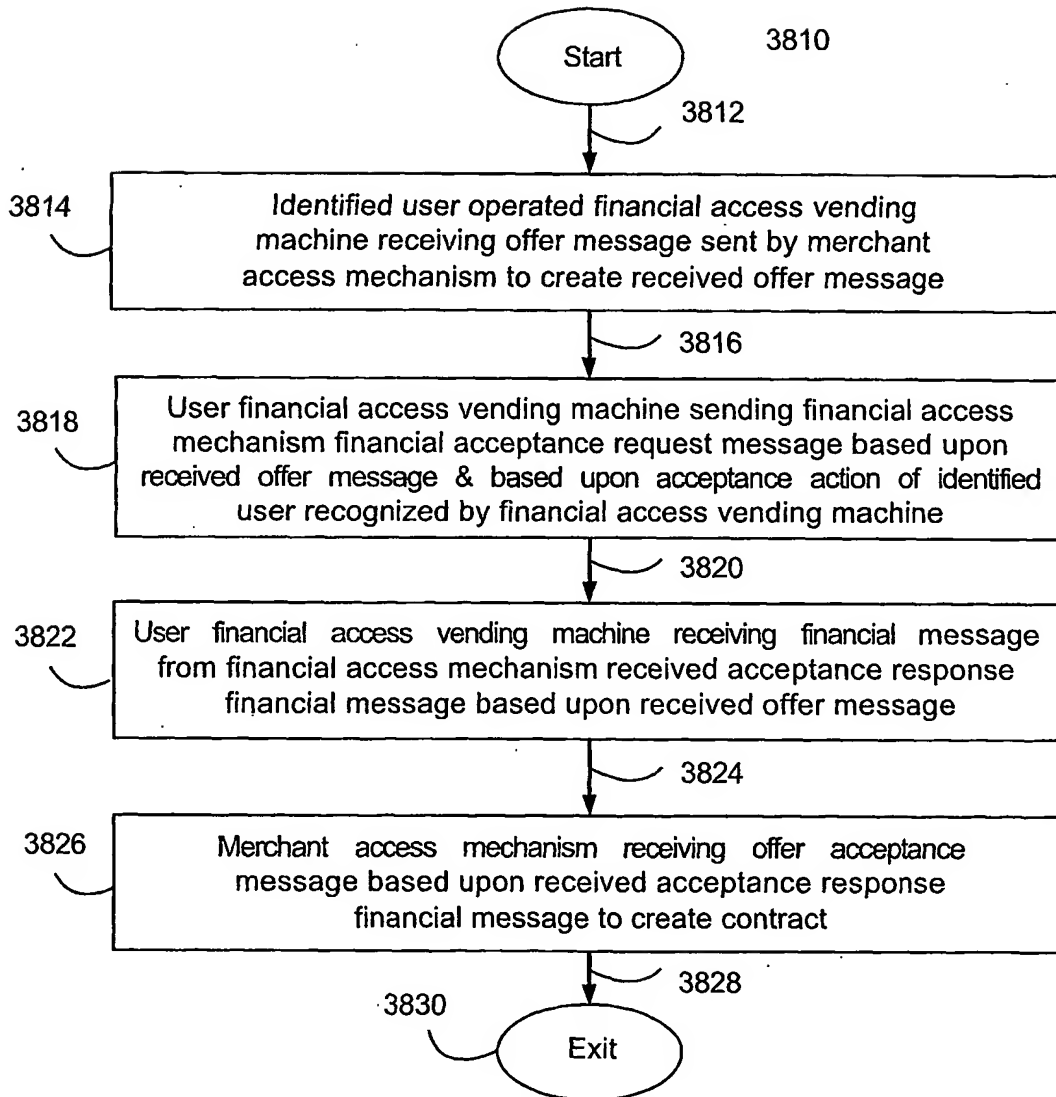
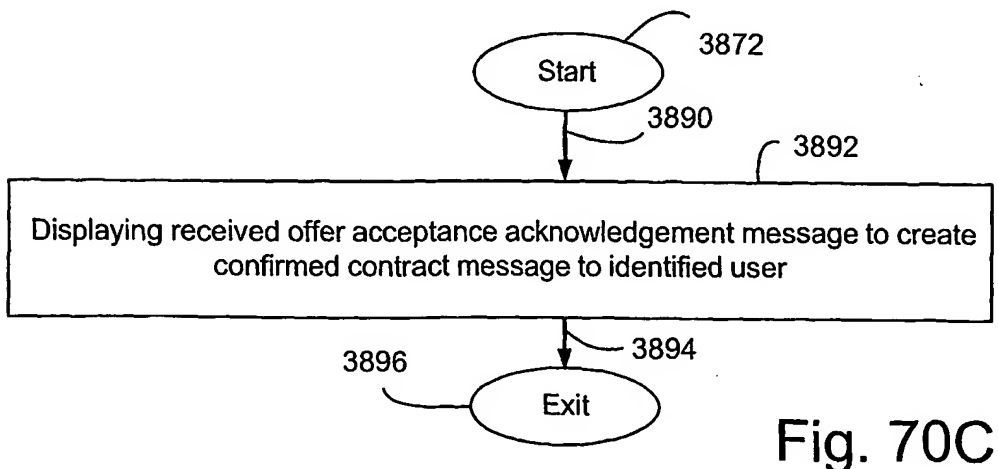
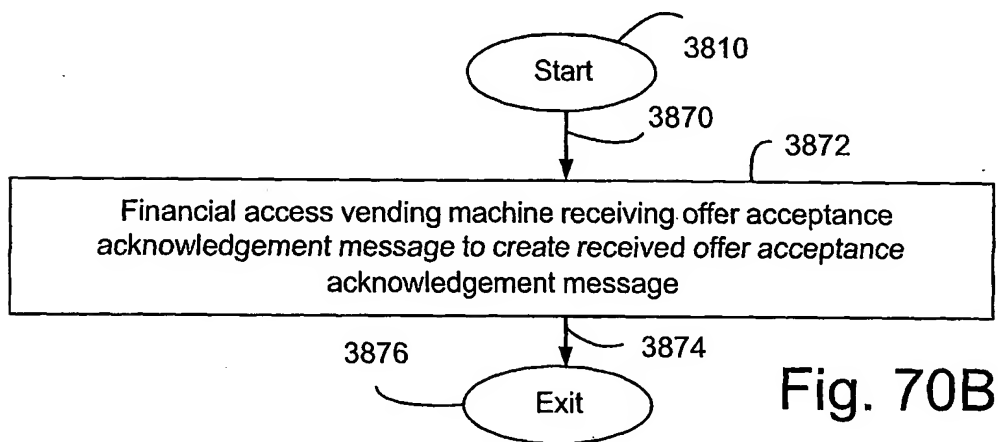
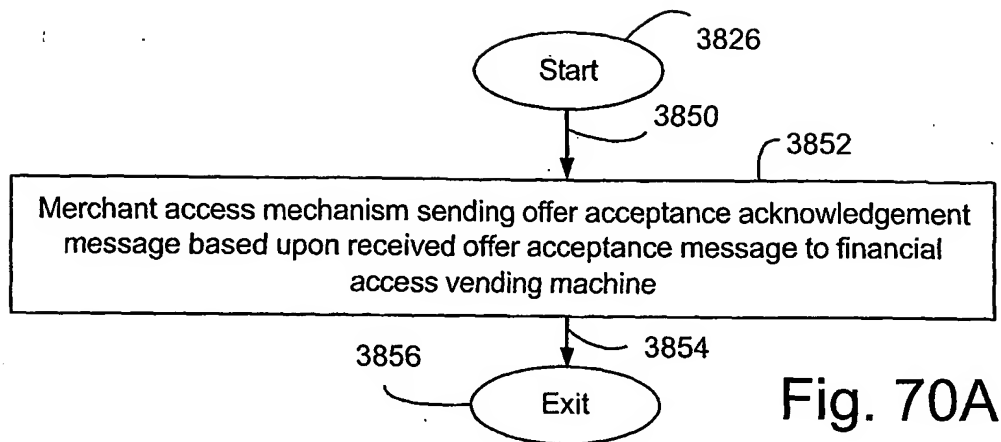


Fig. 69



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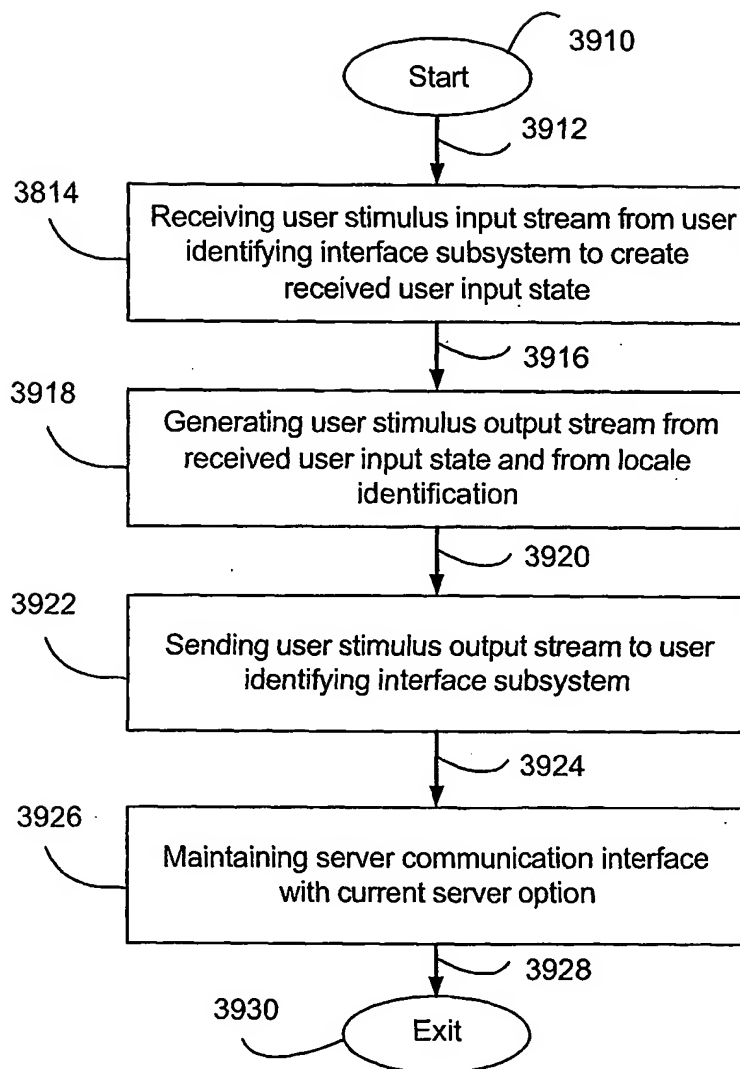


Fig. 71

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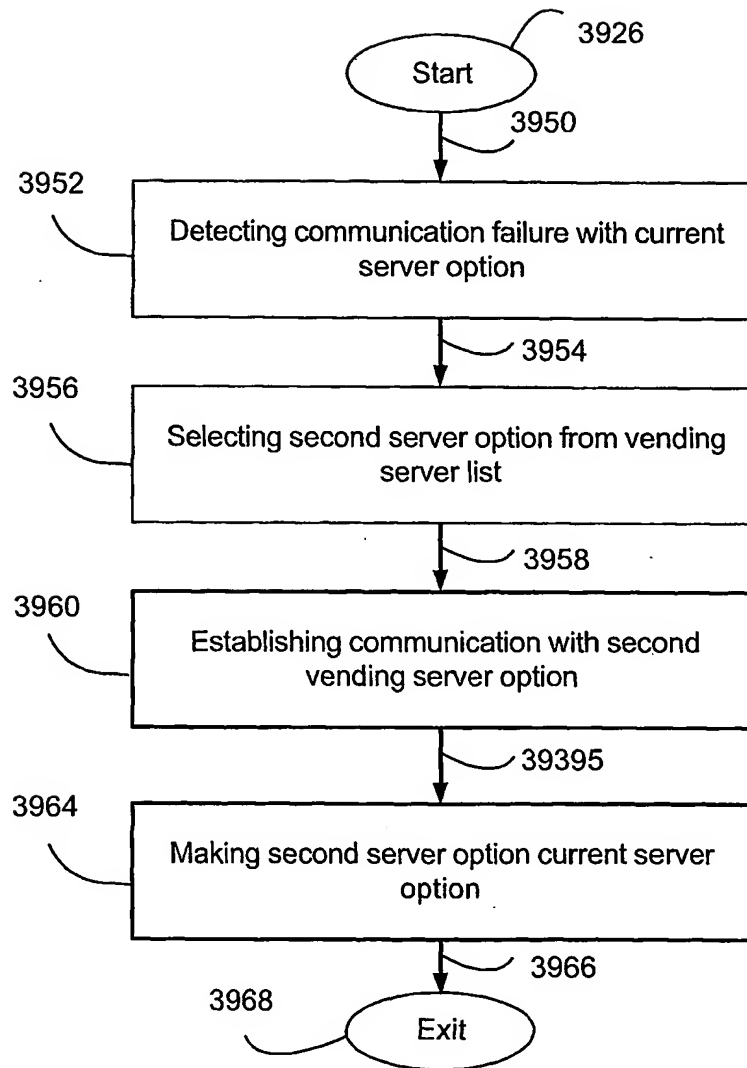


Fig. 72